Evaluative Testing of Sheep Ranching Sites 5LA2316, 5LA2366, and 5LA2359 on the Piñon Canyon Maneuver Site,
Las Animas County, Colorado

Fort Carson Cultural Resources Management Series Contribution Number 17
by
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Prepared for
National Park Service
Midwest Archaeological Center
Lincoln, Nebraska

Funded by

Department of the Army, Fort Carson Command
Directorate of Environmental Compliance and Management
Cultural Resources Management Program
Fort Carson, CO 80913

2009

20090706025

FOREWORD

The archeological investigations reported in this manuscript are an important part of the Fort Carson Cultural Resources Management Program. The goal of the program is to maintain the largest possible area for military training while protecting significant cultural and environmental resources. The archeological testing of Sites 5LA2316, 5LA2366, and 5LA2359 is part of an integrated plan that takes a long-term systematic approach to meeting identification, evaluation, and resource protection requirements mandated by the National Historic Preservation Act. While meeting legislated requirements, this project also provides a valuable contribution to our knowledge of the prehistory and resources of Las Animas County, Colorado. Through an Interagency Service Agreement, the National Park Service, Midwest Archeological Center (MWAC), assists Fort Carson in accomplishing its cultural resources goals and meeting its legal obligations. University of Colorado at Colorado Springs completed the reported project under a cooperative agreement with the MWAC.

Fort Carson began cultural resource studies on the Pinon Canyon Maneuver Site in 1983, immediately following the purchase of these lands. The Cultural Resource Program takes a multidisciplinary approach, combining archeological theory and historical methods with geological, geomorphological, botanical, and statistical techniques and procedures in order to focus its efforts to locate, evaluate, and protect significant cultural resources. Professional studies and consultations with Native American tribes have resulted in the identification of National Register of Historic Places eligible sites and districts. The cultural resources of Fort Carson and the Pinon Canyon Maneuver Site represent all major prehistoric and historic cultural periods recognized in the Great Plains and Rocky Mountains. Sites of the Paleoindian, Archaic, and Ceramic stages are present as are sites from the Fur Trade era, 19th century Hispanic and Euroamerican settlements, early 20th century homesteading and ranching, and World War II and Cold War era military sites. The project reported here completes the second phase of the archeological inventory program - evaluative testing of archeological sites to determine their National Register of Historic Places (NRHP) eligibility.

The Cultural Resources Management Program is in the Directorate of Environmental Compliance and Management (DECAM), which is tasked with maintaining Fort Carson's compliance with federal, state, and local environmental laws and mandates. The DECAM holistic management philosophy holds that all resources are interrelated. Decisions affecting one resource will impact other resources. The decisions we make today will affect the condition of Department of Army lands and resources for future training, research, and recreation. Mission requirements, training resources, wildlife, range, soil, hydrology, air, and recreation influence cultural resource management decisions. Integrating compliance and resource protection concerns into a comprehensive planning process reduces the time and effort expended on the compliance process, minimizes conflicts between resource protection and use, allows flexibility in project design, minimizes costs, and maximizes resource protection.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Directorate 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

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1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 2009	3. REPORT TYPE AN FINAL 2001	-2009	COVERED
4. TITLE AND SUBTITLE Evaluative Testing of Sh 5LA2366, and 5LA2359 on Las Animas County, Color 6. AUTHOR(S) Minette Church and Kimbe	the Pinon Canyon Ma ado		1443-0	ING NUMBERS CA-6000-98-016 od. 013
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Department of Anthropology University of Colorado at Colorado Springs Colorado Springs, CO 80933		Fort (Resour	DRMING ORGANIZATION RT NUMBER Carson Cultural ces Management	
			Series	S Contribution No.
9. SPONSORING/MONITORING AGENC Midwest Archeological Ce National Park Service 100 Centennial Mall Nort Lincoln, NE 68508-3875	enter			ISORING/MONITORING ICY REPORT NUMBER
11. SUPPLEMENTARY NOTES				
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12a. DISTRIBUTION/AVAILABILITY STA Available	TEMENT		12b. DIS	TRIBUTION CODE
In 2001, University of Colorado, Colorado Springs tested three sites on the Department of the Army's Pinon Canyon Maneuver Site in order to assess damage by tracked vehicles that breached protective fences around the sites during Army training maneuvers. All three sites were related to sheep ranching in the area between c. 1890 and c. 1910. 5LA2316 is the foundations of a substantial residential sheep ranch, complete with foundations of residential architecture and a cistern as well as other ranch outbuildings and features. 5LA2366 is a sheep camp with evidence of what might be more substantial residential features in the forms of a cistern and a dugout. The site displays a more extensive early occupation dating between c. 1870 and c. 1890, as well as the later ocuppation to c. 1910. 5LA2359 is a more ephemeral sheep camp. 5LA2316 and 5LA2366 retain archaeological research potential despite the adverse impacts of tracked vehicles, while 5LA2359 was reassessed in the field as having little further archaeological research value.				
14. SUBJECT TERMS history, archaeology, sh			0,	15. NUMBER OF PAGES 274 + iii 16. PRICE CODE
19th century, earlt 20th		· · · · · · · · · · · · · · · · · · ·		
17. SECURITY CLASSIFICATION OF REPORT	SECURITY CLASSIFICATION OF THIS PAGE U	19. SECURITY CLASSIF OF ABSTRACT U	ICATION	20. LIMITATION OF ABSTRACT Unlimited



United States Department of the Interior

NATIONAL PARK SERVICE

MIDWEST REGION

Midwest Archeological Center Federal Building, Room 474 100 Centennial Mall North Lincoln, Nebraska 68508-3873



IN REPLY REFER TO: MWAC09211999

June 29, 2009

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Enclosed is one report completed for the Directorate of Environmental Compliance and Management, Fort Carson, Colorado, and administered through the Midwest Archeological Center, National Park Service. The report is entitled *Evaluative Testing of Sheep Ranching Sites 5LA2316*, *5LA2366*, *and 5LA2359 on the Pinon Canyon Maneuver Site, Las Animas County, Colorado* by Minette Church and Kimberly Henderson of the Department of Anthropology at the University of Colorado at Colorado Springs. I would like to submit this report to the Defense Technical Information Service for distribution. The Report Documentation Page (Standard Form 298) and the DTIC Accession Notice (DTIC Form 50) are enclosed with the reports.

Please let me know if additional information is required. I am looking forward to receiving confirmation of the submittal with the return of the enclosed DTIC accession Notice (DTIC Form 50) postcard.

Sincerely,

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Enclosurcs

Federal laws protect the resources on Fort Carson and the Pinon Canyon Maneuver Sitc. Theft and vandalism are federal crimes. Protective measures ensure that Army activity does not inadvertently impact significant cultural and paleontological sites. Fort Carson does not give out site location information, nor are sites developed for public visitation. Similar resources are located in the Picketwire Canyonlands, where public visits can be arranged through the U.S. Forest Service, Comanche National Grasslands, in La Junta, Colorado.

Fort Carson endeavors to make results of the resource investigations available to the public and scientific communities. Technical reports on cultural resources are on file at the Fort Carson Curation Facility (Building 2420) and the Colorado State Historic Preservation Office. They are also available through the National Technical Information Service, Springfield, Virginia. Selected reports have been distributed to public libraries in Colorado. Three video programs produced by Fort Carson are periodically shown on Public Broadcasting Stations. Non-technical reports on the prehistory, history, and rock art of southeastern Colorado have been distributed to schools and libraries within the state.

Fort Carson continues to demonstrate that military training and resource protection are mutually compatible goals.

Thomas L. Warren Director Directorate of Environmental Compliance and Management Fort Carson, Colorado September 2007

ABSTRACT

In 2001, University of Colorado, Colorado Springs tested three sites on the Department of the Army's Pinon Canyon Maneuver Site in order to assess damage by tracked vehicles that breached protective fences around the sites during Army training maneuvers. All three sites were related to sheep ranching in the area between c.1890 and c.1910. 5LA2316 is the foundations of a substantial residential sheep ranch, complete with foundations of residential architecture and a cistern as well as other ranch outbuildings and features. 5LA2366 is a sheep camp with evidence of what might be more substantial residential features in the forms of a cistern and a dugout. The site displays a more extensive early occupation dating between c.1870 and c.1890, as well as the later occupation to c.1910. 5LA2359 is a more ephemeral sheep camp. 5LA2316 and 5LA2366 retain archaeological research potential despite the adverse impacts of tracked vehicles, while 5LA2359 was reassessed in the field as having little further archaeological research value. The funding for this project came from the U.S. Army by way of the U.S. Park Service, Midwest Archaeological Center.

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Chapter 1

We know of no branch of business that offers better inducements to men of limited means, than stock raising here in southern Colorado, whether it be in cattle, sheep, horses, or mules (Beshoar 1882: 23).

- Michael Beshoar, M. D., Trinidad, CO. 1882

Introduction and Research Design

In 2001, University of Colorado, Colorado Springs tested three sites on the Department of the Army's Pinon Canyon Maneuver Site, all of which were related to sheep ranching in the area between c.1890 and c.1910. 5LA2316 is the foundations of a substantial residential sheep ranch. 5LA2366 is a sheep camp with evidence of what might be more substantial residential features in the forms of a cistern and a dugout. The site displays a more extensive early occupation dating between c.1870 and c.1890, as well as the later occupation to c.1910. 5LA2359 is a more ephemeral sheep camp.

On all three of these sites, tracked vehicles breached protective fencing (and in fact 5LA2316, as the boundaries were recorded in 1983, was not entirely enclosed by the protective fence). The goal of testing at these sites was to assess the impact of tracked vehicle damage on archaeological integrity. The research design was limited to basic questions such as determining the form of occupation, the function of some structures, and dating the sites. In terms of larger research goals, we were able to look at these sites in the context of a very little-researched period of sheep-ranching in the U.S. West in general, and in Colorado in particular. This period encompasses an important historical and cultural transition in western ranching from small family ranches to larger scale ranching businesses, from largely Hispanic to largely Anglo-owned ranching properties, and a dramatic increase in the amounts of land held by smaller numbers of individuals.

Some other research questions were addressed with the help of UCCS undergraduates who took on individual research projects with site data for course credit. At 5LA2316, by separating consistent volume samples collected in areas compressed by military vehicles from samples collected outside the damaged areas, Rollin Craft, a UCCS

undergraduate, was able to analyze artifacts and matrix to assess statistically how far below the present ground surface compaction of soil was significant (see Appendix 1). He found that the impact of tracked vehicles was significant at least to the deepest extent of the deepest excavated test unit at the site, which was over 70 cm. below current ground surface.

Cheryl Wagner, another UCCS undergraduate, completed a Senior Thesis for her degree in Geography and Environmental Science by taking samples and running soil phosphorous analysis, in the hopes of delineating human and animal activity areas through soil chemistry (see Appendix 2). She concluded that such soil testing at a relatively low-tech level can indeed provide ancillary information on human activity, particularly on ephemeral features where surface indications of human activity are ambiguous. However she also cautions that this testing augments but cannot replace test excavation as a means of determining function. Multiple lines of evidence are always methodologically preferable.

Pamela Cowen was Field Assistant on the project, and other UCCS crew members included John R. Gust, Kimberly Henderson, Jonathan Sanchez, and Cheryl Wagner. Kevin Baldwin kindly helped us with feature mapping, and these maps were digitized for this report by UCCS student Tani Vascholtz as a class project. Other maps were digitized by Kimberly Henderson and Thomas Hornyak.

Pamela Cowen designed the database and oversaw the post-field laboratory analysis by Kimberly Henderson (still an undergraduate at the time). The diagnostic artifacts from the surface were analyzed by UCCS undergraduate Michael Prouty.

Cultural History

The general cultural history of the PCMS from the Paleoindian period to the present is extensively covered in many prior reports (Andrefsky 1990; Church, and Cowen 2005). For the purposes here, we will confine our discussion to the period and activities that the sites covered in this report represent, that is, sheep ranching and associated domestic activities and satellite camp sites.

There are few secondary histories of sheep ranching in the southwest in general, and even fewer that cover the turn-of-the-twentieth-century industry that would be most relevant to this discussion. Concerning sheep ranching in Nevada, one author notes:

Nevada sheep grazing entered a notable six decades, years from the late 1870s through the 1930s, in which a complex pattern of seasonal use allowed owners of migrant sheep herds to move throughout the Intermountain West, taking advantage of mountain pastures in the summer, natural hay in spring, and drier but warmer climes in the fall and winter. The pattern of seasonal transhumance in Nevada has never been well analyzed by contemporary scholars... (Starrs 1998: 198).

Some discussion of sheep ranching specific to PCMS exists in the works associated with archaeological testing at Brown's Sheep Camp (Bringelson 2005; Hunt 1998) and in local histories, and some of these specifics will be covered here, along with some primary documents where available.

In 1882, doctor, politician, and "booster" Michael Beshoar of Trinidad wrote:

Investment in cattle and sheep no one can doubt under such favorable circumstances of climate and pasturage can not fail to yield a large percent on the capital invested...It shows that here is a chance not only for the man of large capital, but also for the man of moderate means (Beshoar 1882: 23).

Again according to Beshoar, in 1882:

\$800 will start a man with sheep, and with proper care he can make thousands of dollars inside of ten years with only that amount invested. Good healthy sheep are worth \$1.75

to \$5.00 per head in the flock as it runs, but the recently imported buck sells from \$20 to \$50 and the demand is good. Herders for both sheep and cattle are paid from \$20 to \$40 per month and board. All depends upon previous experience and success in handling. The demand for good trusty herders is always good, and they can find employment at any season of the year (Beshoar 1882: 79)

Despite Beshoar's expansive and no doubt optimistic characterization of the industry, in fact the small, family-owned wool-growers, who were mostly Hispanic, were getting pushed out of PCMS by the late 1880s. In Nevada at the same time, one author notes that "cattle operators in Elko would tolerate the seasonal grazing of sheep but not their year-round presence" (Starrs 1998: 199). In Colorado, access to public lands was also in play during this period, but not to the same degree. Out on the Plains, sheep ranching operators found themselves with an increasing need to claim their grazing lands legally. Cattle ranching spread and the remaining small sheep ranchers were discouraged in the courts and through occasional violence (Church 2005; Friedman 1988). According to one author writing on the Colorado range industry:

The control of range wars was a matter of considerable importance, as one can easily realize when he considers that lives lost were numbered by scores, those wounded by hundreds, and the sheep killed by thousands. In 1900 the state line between Colorado and Utah was patrolled for fifty miles by armed cattlemen determined to keep out the sheepmen. The latter retaliated by poisoning springs and stampeding cattle. Losses were heavy in all sections of the state, the Prairie Cattle company [operating in PCMS] herders at one time having killed four thousand sheep belonging to Jesus Ma [sic] Perea. The company later agreed to pay Mr. Perea for his loss (Peake 1937: 90, originally reported in the Trinidad Daily Times, February 21, 1882)

This was not the only conflict between Anglo cattlemen and Hispanic sheepmen reported in the area. Accounts of others came up in interviews conducted on behalf of the Army in the mid-1990s (Loendorf, and Clise 1997). Whereas there had been numerous small-scale Hispanic wool-growers in the valleys along the Purgatoire, a pattern emerged through the 1880s where large, Anglo-owned cattle ranches came to dominate. What

sheep ranches were left were also larger scale operations, and became dominant in the southern part of what is now PCMS, including well-known figures like Isaac Van Bremer and John M. Taylor. The Gutierrez' who later owned Brown's Sheep Camp are an exception to the ethnic pattern of Anglo takeover, but it is worth noting the physical description of Juan Gutierrez by local lawyer A.W. Archibald: "he showed Caucasian blood, and in appearance was Caucasian" with auburn hair and blue eyes (Richeson 1934: 30). Such a description would undoubtedly have benefited Gutierrez in the racial (and racist) landscape of the late nineteenth century. Furthermore, relations between his offspring and other Hispanic and Native American ranchers in the area were not always good (Loendorf, and Clise 1997). Anglo cattle ranches came to dominate the north.

In Colorado, as elsewhere, between 1885 and 1990 a series of bad winters combined with existing over-grazing "propelled a changeover from using 'borrowed' (read stolen, or at least usurped) land to owning at least some of it... The transition produced a more geographically stable, fenced, and rooted livestock ranching" (Starrs 1998: 55). This trend got more momentum when the federal government began instituting grazing fees on public lands in the beginning of the twentieth century (Starrs 1998). In her report on Brown Sheep Camp, Dawn Bringelson notes that Colorado had 110,000 sheep in 1880, and 2 million only six years later (Bringelson 2005: 17). Despite the bad years between 1885 and 1990, in Texas, production of sheep actually increased during the period between 1910 and 1943, declining again after World War II.



Figure 1: Forbes Wool Co. on N. Chestnut St. in Trinidad, Co. Photo by Otis Aultman. Courtesy of Denver Public Library, Western History Collection. Between c.1890 and c.1910.

Archaeological Implications

These changes in strategy for owning versus using land can be seen in the layout and artifacts on sites. "Stable, fenced, and rooted livestock ranching" meant substantial home ranches, line camps, corrals, chutes, water tanks, as well as tack sheds, fencing wire and staples, domestic refuse and overall, an increased investment in place in the PCMS region. These strategies also created different distributions of such sites on the landscape, as territories bounded by fences and cairns and characterized by restricted access to springs and waterways became more clearly defined. As historian Morris F. Taylor describes the PCMS around 1900:

The land of plain and mesa in eastern Las Animas County was being taken up more and more. Cattlemen, Sheepmen, and Homesteaders proved up on it, and the open range

gradually disappeared as fences measured off sections and protected water holes. Serious dispute over range and water rights became dangerous... (Taylor 1959: 50)

Research in the General Land Office records did not turn up a claimant for the location of 5LA2316 under the Homestead Act. A search on this property in records of abstracts and titles in Trinidad was impossible as the county records have unfortunately been turned over to a private business which charges exorbitantly by the half hour to consult these presumably public records. We do note that this is clearly a more substantial home base with building foundations, corrals, and domestic refuse. By the time of the site's occupations, only a few larger sheep operations were still holding their own in the midst of consolidating cattle ranches in this area. These included S. T. Brown's and later Benjamin Gutierrez at Brown's Sheep Camp. In 1900 Brown's operation had 6000 sheep (Friedman 1988). Another rancher in the area at this time was Edward West, who ran 5900 sheep on 4241 acres in 1900. Elisha S. Bell and John Morgan were also successful ranchers who were in partnership with Brown by 1900. By 1910, the Bell Sheep Company ran 9150 sheep on 4638 acres. The ranch homesite of 5LA2316 as well as the more ephemeral campsites 5LA2359 and 5LA2366 may be associated with one or more of these operations. At 5LA2359 there is also potential evidence of occupation in the form of a dugout structure which we noted the depth of at the margins using shovel probes, but were not otherwise able to explore in this project.

Our primary research goal was to assess damage by military tracked vehicles. However the smaller sheep camp of 5LA2359 has great research potential to explore the different periods and scales of sheep ranching in this area. Few such sites have been explored elsewhere, and none were found that had the qualities of clearly distinct occupations along with clarity and integrity of site formation.

Chapter 2

Methodology

Field Methodology

The majority of the excavation units lay along the tracked vehicle tracks that constituted the damaged areas of the site, while some were placed so as to provide control units outside of tracked vehicle damaged areas, or to more clearly define a feature. The pairing of units in damaged and undamaged areas allowed UCCS student Rollin Craft to do a statistical study of degree and depth of fragmentation and compaction of soils and artifacts in damaged areas (Appendix 1).

Students excavated all units using natural stratigraphic levels, or "lots," unless those lots exceeded 20 cm. The term "lot" was used to indicate changes in matrix that may or may not have occurred as horizontal strata, including, for example, hearth fill. Thus one lot could lie within another lot, whereas the term "level" implies horizontally layered soils only. Of course any change in matrix as clearly defined as a hearth was also given a feature designation, bisected, photographed, mapped, and bagged separately for water screening and/or flotation. Units were considered culturally sterile when the last 20 centimeters produced no cultural materials.

Lab Methodology

Field Lab

In the field lab, waterscreen samples were processed, and all of the artifacts were sorted by excavation unit number, by lot (level), and by type. They were catalogued, bagged and labeled, and generally made ready for transport and further analysis after the field work was complete. Items were counted and entered into an excel spread sheet noting provenience and artifact or sample type.

Post-field Lab

Pamela Cowen oversaw the post-field laboratory analysis. The analyst entered all the data into a Microsoft Access database, with the following separate tables: Ammo, Bone/Shell, Ceramics, Glass, Metal, Plastic, Nails, Tin Cans Wood/Coal/Charcoal (noted and weighed, but not to be curated), and Other. Pamela Cowen designed the database and completed a portion of the analysis. The remaining analysis was finished by Kimberly Henderson and Michael Prouty. The result is not as in depth as the authors would have preferred, but was what the budget allowed given the analysis we did at the request of DECAM for another PCMS project, for which we were never reimbursed.

A complete listing of artifacts with all the common fields is in the table labeled Master in the database. To determine "category" and "class" we employed a modified version of Stanley South's functional categories (South 1977) for the analysis of the Historic artifacts.

Category and class designations serve to consolidate like-functioning but very diverse artifacts into groupings that make patterns of activity across the site clearer and easier to illustrate. The "indeterminate" category refers for the most part to fragments of vessel glass that were too small and undiagnostic to be placed in a category or class. Glass vessels can relate to categories as diverse as subsistence (e.g. tumblers, condiment bottles, mason jars, ginger beer bottles, etc.), recreation (e.g. alcohol bottles), or personal (e.g. medicine bottles). Thus if the fragments were small, fragments were labeled indeterminate.

Lithics were analyzed and divided into chipped stone and ground stone for artifact class. Many of these items, especially those found in mixed contexts such as the post-occupation looter pits in Feature 1, could as easily be from post- as from pre-contact temporal contexts. There is ethnographic evidence of the use of stone historically by Native American and Hispanic peoples (Carrillo 1994; Carrillo et al 1996; Carrillo et al 2003; Church 2001; Clark 1996).

Wood, charcoal, and coal were noted and weighed but will not be curated. Several of the temporally or functionally diagnostic metal cans were noted in the analysis but were not collected from the site.

For historic artifacts, measurements were also in centimeters and grams unless the English system of measurement was a manufacturer standard, such as was the case for hardware items like screws, or pennyweight in the case of nails.

Chapter 3

Feature and General Excavation Descriptions at 5LA2316

Introduction

Of the sites tested, this one represents the most investment in architecture and domestic space, characteristic of sheep ranching sites established after the transition to a more rooted settlement pattern of land ownership after the 1880s. After testing was completed, it was apparent that there may have been either two occupations of the site or a rebuilding and re-use in the course of a continuous occupation. In Features 2 and 8, cultural material was found under the foundation walls and stones that would indicate either a multi-component site or multiple building episodes. Feature 1 shows evidence of later occupation as the foundation of the corral was constructed with the smallest tabular stones on the bottom with a gradual increase in size of the stones toward the top. The construction suggests that the corral may have been built in the course of disassembling another stone structure. Both occupations were most likely within the same time period since artifact dates do not differ between those found above the foundation walls and those found below.

Testing also revealed some changes and additional information to the original 1984 site description. Feature 1 turned out not to be a domestic structure but was actually a three sided corral with a middle post support. Two additional features were identified: Feature 9, a depression located southeast of Feature 8 outside of the protective fence, and Feature 10, a much smaller depression east of Feature 2.

The feature/structure numbering system used for the 1984 site forms have been modified to include all architecture as features in this report. The old system that included structure numbers has been discarded and all structures and features have been reassigned numbers. Excavation units (EU) were put in every feature except for features 9 and 10.

The list of features is as follows:

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Feature 1 = (1984 "Structure 2") sandstone block corral with three extant, standing walls
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Feature 2 = (1984 "Structure 1") T-shaped foundation sandstone alignment

Feature 3 = (1984 "Structure 4") three-sided sandstone foundation

Feature 4 = (1984 "Structure 3") two-to three sided sandstone foundation

Feature 5 = (1984 "Feature 1") bell bottomed cistern lined with limestone rock slabs

Feature 6 = (1984 "Structure 5") three-sided foundation of sandstone slabs

Feature 7 = (1984 "Feature 3") circular sandstone slab area

Feature 8 = (1984 "Structure 5") depression/dugout

Feature 9 = possible depression/dugout

Feature 10 = (1984 "Structure 6") possible privy

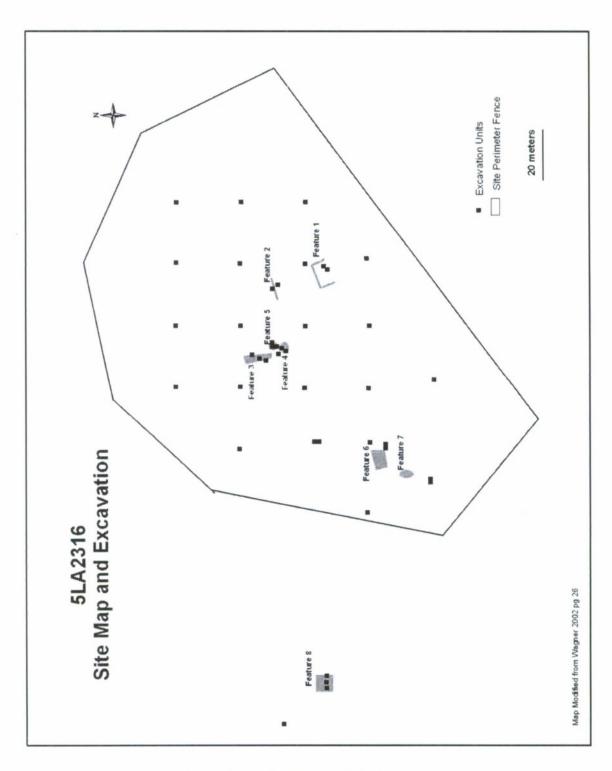


Figure 2: Site Map with Feature and Excavation Locations (Modified and digitized by K. Henderson)

Feature 1

General Description

Feature 1 (Structure 2 in original site 1984) is a south-facing sandstone block corral with three extant, standing walls. The corral is approximately 8 meters (m) wide with the east and west side walls extending between 5 and 6 m after wall fall. The walls are constructed with mud mortar with sandstone inclusions. The entrance or opening faces south. A "Y" shaped piece of wood, possible post, was found lying off to the west inside the structure. Surface artifacts surrounding this feature were sparse. Two excavation units (EU) were placed in this feature (EU 11 and 12).



Figure 3: Feature 1 Looking Southwest at North and East Wall

Excavation Description

EU 11 was placed inside the feature just east of the "Y" shaped "post". It is the southern most unit in the open area. The unit was placed in this location to verify if the wood piece was part of a post and possibly part of an internal roof support. A post hole was revealed near the northwestern corner, first as a distinct soil change and then the actual post was discovered at approximately 52 centimeters (cm) below the surface. A lighter compact soil with small pebbles surrounded the post, most likely as fill for additional support.



Figure 4: Unit 11 Lot 3 North Facing

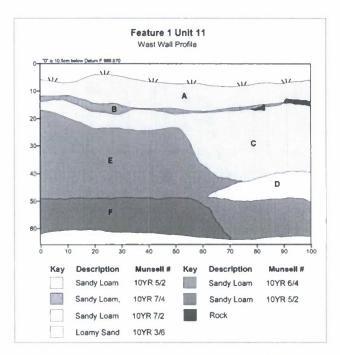


Figure 5: Feature 1 Unit 11 West Wall Profile (digitized by T. Hornyak)

EU 12 was also placed inside the opening of the corral feature. The southwest corner was also the northeast corner of EU 11. This unit revealed a gate latch associated with bailing wire in the first 15 cm of excavation within a context of light brown, silty loam soil with small pebbles. The unit also revealed a significant amount of charcoal along the south and west walls. The latch and bailing wire from this unit and the post from EU 11 were most likely part of a wire fence and gate that would have closed off the corral opening.

Artifacts

Artifacts consisted mostly of architectural materials found in the upper 10 cm of excavation of both units. Architectural artifacts, such as lumber, fence staples, and wire nails (post 1890) found in the feature relate mostly to the construction of the gate and possible roof.

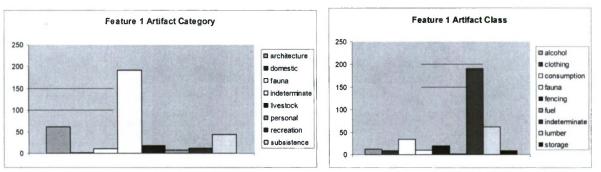


Figure 6: Feature 1 Artifact Categories and Classes

Feature 2

General Description

Feature 2 (originally Structure 1 in 1984 site form) is a rough T-shaped foundation sandstone alignment with area to the north identified as adobe melt by Richard Carrillo in 1984. A two course stone alignment runs from west to east and extends approximately 5.5 m. Another cluster of stones, thought to be chimney wall fall in 1984, extends to the south about 3 m from the west end of the east/west alignment. This cluster is approximately 1.5 meters long. There are a few scattered stones that surround each alignment. Three units were placed in this feature (EU 8, 9, and 10).

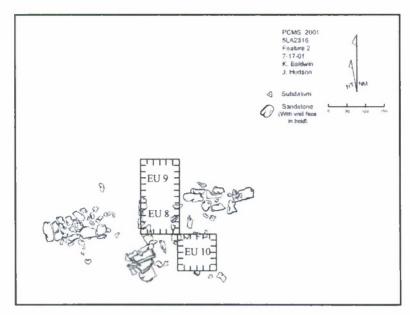


Figure 7: Feature 2 Plan Map and Excavations (by K. Baldwin, digitized by T. Vasholtz)

Excavation Description

No evidence of adobe was visible on the surface. The rough alignment of smaller sandstone pieces to the south made it difficult to determine which side of the original structure this wall represents. Excavation units were placed to try to determine the inside and outside of the feature as well as the construction character and depth of the east/west stone alignment.

EU 8 was situated in the middle of the east/west alignment right at the junction where the south cluster of stones intersects. Excavation revealed that the wall is two course horizontally but is only one course deep. One wire nail was discovered in the first 10 cm. The most significant find was a concentration of wood, a wire nail and a snap that was discovered underneath the wall stones at approximately 20 cm below the surface. This suggests either a rebuilding episode or additional occupation level. The discovery of the wire nail (early manufacturing date1890) suggests that the structure was constructed after the pre-1900 occupation of the site.



Figure 8: Unit 8 Lot 2 North Facing



Figure 9: Unit 8 Post East Facing

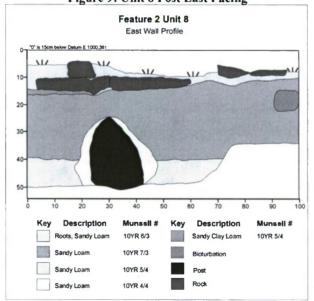


Figure 10: Feature 2 Unit 8 East Wall Profile (digitized by T. Hornyak)

EU 9 was located north of the two course wall adjacent to EU 8. This unit was part of the plan to determine the outside and inside of the feature, so it was placed in the area that was thought to have had adobe melt in 1984. All artifacts were found in the first 20 cm of excavation. They include wire nails, vessel glass and a center fire, .44 caliber WRA (Winchester Repeating Arms Company) cartridge casing with an early manufacture date of 1873 (Logan 1948). The unit was heavily disturbed by a rodent burrow. No evidence of adobe melt or compact floor was discovered.

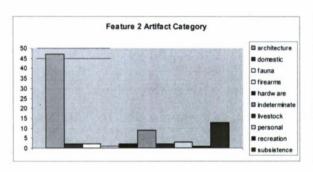
EU 10 was located off the southeast corner of EU 8 to try to determine the inside and outside of the feature. In the first 10 cm of excavation several small sandstone rocks, 4 to 6 cm in size, were found that were interpreted to be additional wall fall. They were mapped and removed. This unit, as with EU 9, was also heavily disturbed by rodents throughout all excavation Lots. Only seven artifacts were recovered that included a wire nail and clear vessel glass fragments. There was no evidence of a cultural floor.



Figure 11: Unit 10 Lot 1 North Facing

Artifacts

The majority of artifacts, excluding those discovered underneath the wall were found in the first 20 cm of excavation. They were primarily structural consisting of wire nails and wood fragments. Domestic artifacts are represented by metal snaps and a small piece of tan colored fabric. Subsistence class artifacts were comprised mostly of several clear bottle glass fragments and one whiteware fragment.



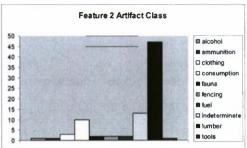


Figure 12: Feature 2 Artifact Categories and Classes

Feature 3

General Description

Feature 3 (Structure 4 in 1984 site form) is a three-sided sandstone foundation. It is located north of Feature 4. The feature was thought to be part of the main living area of the site due to a very heavy surface artifact scatter. Four units were placed in this feature (EU 33, 34, 34a and 42).

Excavation Description

An internal grid was established in the larger domestic area of the site to obtain a sample of structural and domestic information.

EU 33 was located about 3 m southwest of the eastern rock wall alignment and in the "center" of Feature 3. No indications of additional features or floor were discovered. Several domestic artifacts were recovered underneath a rock cluster that was thought to be part of a wall. Artifacts included stoneware, several different fragments of glass, and a variety of nails and flat metal fragments. The majority of the artifacts came from the first 10 cm of excavation.



Figure 13: Unit 33 Lot 0 North Facing

The north corner of EU 34 was located exactly 1 m south of the southwest corner of EU 33. It was excavated to determine the extent of Feature 3. During excavation, several large fragments of charcoal were found. Several artifacts were recovered from Lot 1 within the first 10 cm, especially along the northeast portion of the excavation unit, that do not provide evidence for a specific activity area due to their diversity. Artifact density decreased significantly in Lots 2 through 4. Bioturbation began in Lot 2 changing the soil context to a much more compact surface with small pebbles. Lot 4 was excavated only 5 cm to bring the final excavation depth to the same level as the other units in the grid.

EU 34A was opened up as a 60 x 60 cm extension from the northwest corner of EU 34 because there were several artifacts such as leather, bone and wire protruding out of the sidewall. The southeast corner overlapped the northwest corner of EU 34 by 30 cm south of the north wall and east of the west wall. The soil was ashy and had a sandy composition. Artifact density and diversity in the first Lot was consistent with Lot 1 of EU 34. Again, in Lot 2, the soil is very compact and disturbed by rodent activity. Many artifacts were recovered in Lot 2, mostly from the area of bioturbation. Artifact density decreased in Lot 3 and 4.

EU 42 was placed within what was thought to be the inside of Feature 3 with the eastern wall of the unit up against the large "foundation" stones on the surface. Three Lots were

excavated in this unit. Artifacts were recovered in the first 15 cm, as with many other units on the site with density decreasing rapidly afterwards. The unit did not reveal any structural features or artifact patterns to suggest feature function or conclusive evidence for defining an "inside" or "outside" of the feature.

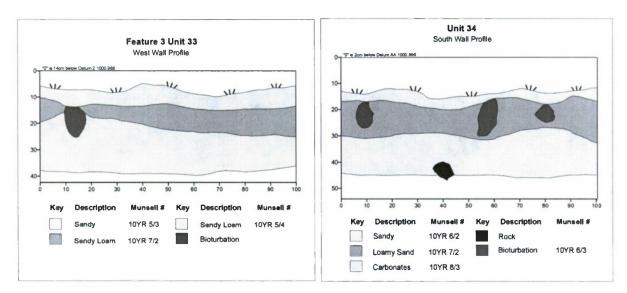
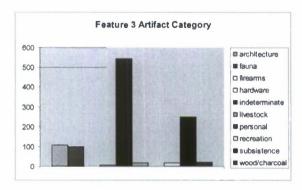


Figure 14: Feature 3 Unit 33 West Wall Profile and Unit 34 South Wall Profile (digitized by T. Hornyak)

Artifacts

Artifacts from Feature 3 were recovered primarily from the first 20 cm of excavation. Domestic artifacts found within this feature include glass of diverse colors (mostly clear), whiteware fragments, a porcelain button and a pencil with a rubber eraser. Structural artifacts include wire nails, window glass fragments of varying widths, fence staples, and tar paper. The faunal artifact assemblage was primarily made up of rodent bones or small mammal.



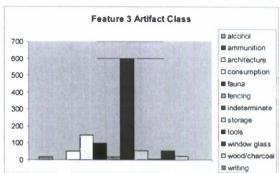


Figure 15: Feature 3 Artifact Categories and Classes

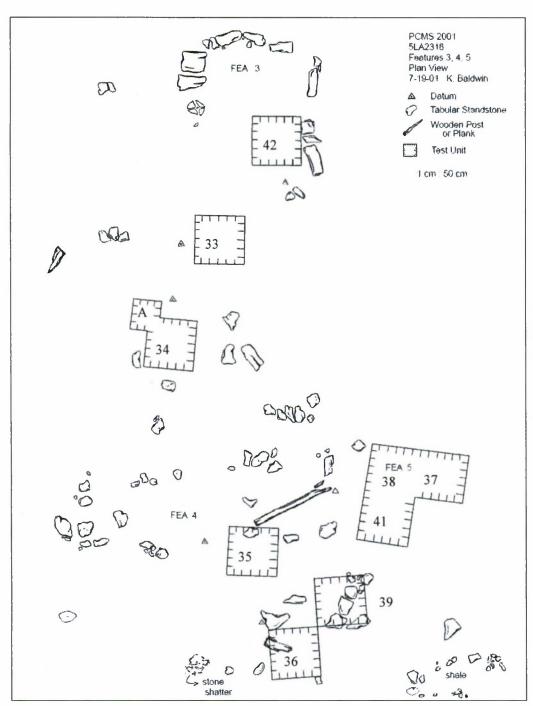


Figure 16: Plan View of Features 3, 4 and 5 (by K. Baldwin, digitized by T. Vasholtz)

General Description

Feature 4 (Structure 3 in 1984 site form) is a two to three sided sandstone foundation and is the second feature of the main residence area. The feature is south of Feature 3. Two units were placed in the feature (EU 36 and 39) and another between Features 3 and 4 (EU 35).

Excavation Description

EU 35 was placed in-between Feature 3 and 4, 1 meter northwest of EU 36, to determine if this was a room or just an area outside both features. There were several pieces of milled lumber and some large stones on the surface that were pedestalled during excavation. Lot 1 excavation was characterized by two large rodent holes and bioturbation. Most of the artifacts from this unit were recovered from Lot 1. As excavation continued, the soil matrix became more compact with very few artifacts. The lumber in the southern portion of the unit was removed and the pedestal was excavated in Lot 4. Several artifacts were recovered from this Lot that were consistent with artifacts from Lots 1 and 2. Rain revealed a horseshoe in the northwestern corner of the unit near the pedestalled rocks so Lot 5 was excavated to take that corner to the same depth as the rest of the unit. The approximate final depth was 33 cm below surface.

EU 36 was located within Feature 4. The unit did not yield much in terms of structural materials or artifacts. It was heavily disturbed by rodents. Most of the artifacts were recovered from the first 24 cm of excavation and from areas of disturbance. The unit was closed at a final depth of 29 cm below surface.

EU 39 was placed within the feature bisecting a stone alignment that extended from the south wall to the northeast corner of the unit. The unit shared its southwest corner with the northeast corner of EU 36. The stones were pedestalled during excavation but did not show evidence of a solid wall structure. Few artifacts were recovered in the first 10 cm. Rodent disturbance was encountered in Lot 2 and continued throughout the rest of the excavation. The unit did not provide any additional information about Feature 4 and was closed at the end of Lot 3 at a final depth of 27 cm below surface.



Figure 17: Unit 39 Lot 1 North Facing

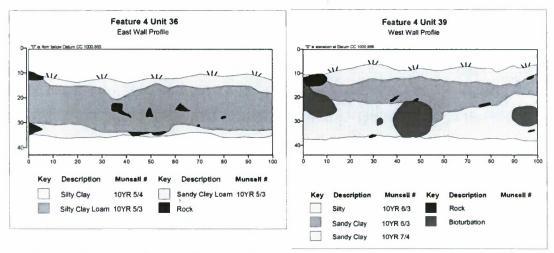


Figure 18: Feature 4 Unit 36 Profile of East Wall and Unit 39 Profile of West Wall

Artifacts

There was a large amount of structural debris, milled wood and artifacts on the surface in this feature. Architectural debris is represented by the large amount of window glass, wood and fencing materials shown in the artifact class chart below. Other than that, the feature had a significant percentage of domestic artifacts that were comprised of small whiteware fragments and bottle glass of various colors, including amethyst glass that has an early manufacture date range of 1880 to 1918.

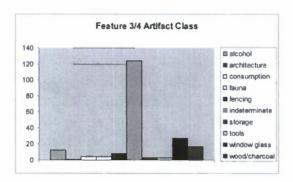
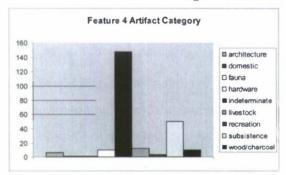


Figure 19: Feature 3 and 4 Artifact Class



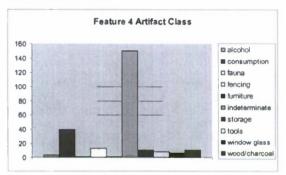


Figure 20: Feature 4 Artifact Categories and Classes

General Description

Feature 5 (Feature 1 in 1984 site form) was a bell-shaped cistern lined with limestone rock slabs that were plastered together and plastered over. The cistern was located just off the southeast corner of the main domestic structure, Feature 4, suggesting that a gutter drainage system was used to capture water. This type of system was most common for occupations around 1910. Three units were initially opened to uncover and define its boundaries (EU 37, 38, and 41).

Excavation Description

EU 37 was the first of a series of 3 units opened to explore Feature 5. It was located near the center of a depression southwest of Feature 3. Some milled lumber and a few small surface artifacts, and a ceramic marble, were found on the surface. Within the first 4 cm of excavation several large flat limestone rocks were uncovered on the western half of the unit that angled downward toward the center of the depression. Artifact density increased with depth significantly. After 15 cm of excavation it became too difficult to continue around the milled

lumber and limestone rocks so it was closed as a "unit". Another unit was opened up to the west to continue to define the structural debris.



Figure 21: Unit 37 Lot 1 North Facing

EU 38 was opened adjacent to and west of EU 37 to continue to explore the feature boundaries. After the first 4 to 5 cm of excavation, the tops of three large wood posts and flat downward angled limestone slabs were uncovered. Most of the lumber was oriented north to south in the unit. There was one large post that crossed the unit from east to west and extended in to EU 37. In Lot 2, the actual center of the cistern was revealed in the southeastern quarter of the unit. As in the case of EU 37, artifact density increased dramatically with depth. Lot 3 focused on excavation in the center of the cistern. At an approximate depth of 30 cm below the surface the stones and milled lumber inhibited any further excavation. The "unit" was closed and another was opened to the south to define the extent of the structural debris.



Figure 22: Unit 38 Strat Profile West Facing

EU 41 was the last unit opened to define Feature 5 and was adjacent to and south of EU 38. In Lot 1 the rest of the large north/south posts were revealed with a few additional limestone slabs in the northwest corner. Lot 3 continued excavation to a final depth of 40 cm below surface in the northeast corner of the unit and defined the rest of the limestone slabs and the boundary of the cistern. At this point, a complete plan map of all of the structural debris covering the three units was drawn indicating differences in angle and depth.



Figure 23: Feature 5 North View

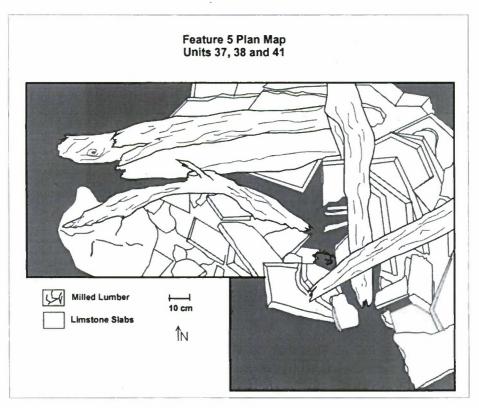


Figure 24: Feature 5 Plan Map, Units 37, 38 and 41 (digitized by K. Henderson)

After the plan map was completed, all of the debris was removed and the feature was excavated simply as "Feature 5." The soil in the center of the feature was very soft and organic.

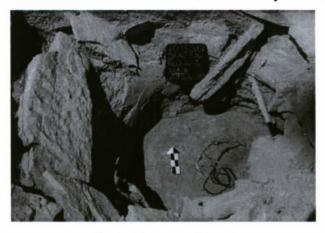


Figure 25: Feature 5 Lot 6

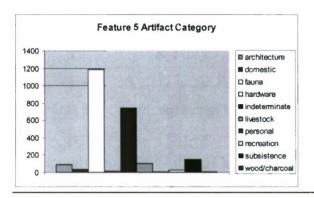
Excavation continued every 10 cm for the next three Lots but changed to 20 cm levels in Lot 7 since artifact density and soil context did not change with depth. In Lot 7 some of the limestone

slabs were removed for safety reasons and to define the cistern wall. In Lot 9 at approximately 157 cm below the surface, the soil changed and had much less clay content and much smaller ped structure. The soil was also laden with plaster materials and wood fragments. Several bed springs were removed in this Lot. In Lot 10, at a depth of 180 cm below surface, the cistern began to bell out at the bottom but excavation did not follow the wall so as not to undercut the limestone rocks above for safety. Artifact density was still high in Lot 10. In Lot 11 excavation continued only in the south/southwest half of the feature to try to determine the depth of the floor. Soil color became much darker at the end of this Lot and into Lot 12. Lot 12 was excavated to 220 cm below surface and in the last 7 cm several bone fragments, mostly rodents that probably died there, were recovered.



Figure 26: Feature 5 Lot 12

Lot 13 was the final Lot excavated in the feature because of time constraints and increasing danger of cave-in. Artifact density was still high and the walls of the cistern began to curve inward. Artifact screening was switched from 1/4 to 1/8 in wire mesh to recover as much of the small faunal remains as possible. Additional excavation of the feature was abandoned at a final depth of 240 cm below the surface as new cracks began to form in the walls and it became unsafe. Excavation of the feature indicated that the cistern was abandoned and filled in one event since there were no significant soil changes that would suggest otherwise.



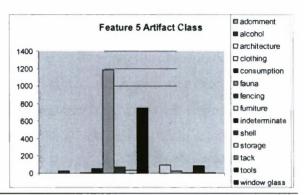


Figure 27: Feature 5 Artifact Categories and Classes

Artifacts

In general, the majority of the artifacts recovered from the feature are consistent with the diversity of materials often dumped into cisterns at the time of site abandonment. Over 2000 artifacts were recovered. Glass and metal materials made up the majority of artifacts with few ceramics. Glass fragments of all kinds and colors, including amethyst, were recovered. General vessel, bottle glass and a few fragments that may have been part of lantern globes were found. Structural artifacts include many wire nails and a few samples of plaster chinking and milled lumber. Twenty eight large springs from a bed or car seat were recovered. They were 12 in. tall and had a center diameter of 2 in. and an end diameter of 5 in. Wire fragments associated with the bed springs and framing fragments comprised a large portion of the artifact count as well. Several one inch black and brown leather strap fragments were found that are most likely associated with horse tack supplies. The charts (Figure 27) indicate a disproportionate amount of faunal remains in relation to the rest of the artifacts. This is due to the count of the individual elements of the skeleton and not the actual number of individuals represented. Most of those remains were from small rodents.

Feature 6

General Description

Feature 6 (Structure 5 in 1984 site form) is a three-sided foundation of sandstone slabs, identified as a corral, surrounded by remnants of a post-and-wire fence. It has a south facing entrance. Two units were placed in this feature to assess military vehicle impact (EU 1 and 2).

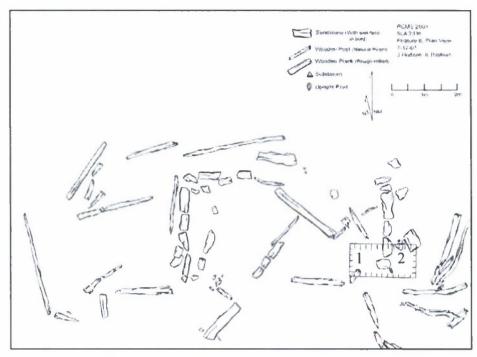


Figure 28: Plan View of Feature 6 and Excavations (by K. Baldwin, digitized by T. Vasholtz)

Excavation Description

EU 1 was placed in the southern track of a vehicle that drove through the feature. The unit was directly adjacent to and outside of the eastern wall alignment near the southern end. The vehicle track extended through the unit diagonally from the southwest to the northeast corner. First, excavation was done outside of the vehicle tracks in the southeast half of unit. Then, in Lot 5, excavation began on the tracks in the northwestern half of the unit. A wooden post was uncovered in Lot 2 in the southwest corner that was most likely associated with the post-and-wire fencing that surrounded the feature. Few artifacts were recovered from the unit and it was closed at a final depth of 34 cm below the surface.

EU 2 was placed adjacent to and west of EU 1 inside the structure along the eastern wall. A vehicle track extended diagonally through the unit from the southwest to the northeast corner. Like EU 1, the unit was excavated in separate halves in relation to the vehicle track. The first three Lots were excavated in the vehicle track. Only one wire nail was recovered. Lots 4 through

6 were excavated outside of the vehicle track. Few artifacts were recovered in those Lots as well. No significant soil changes were noticed between the two areas except for a small area of compaction. Final depth of excavation was 35 cm below the surface.

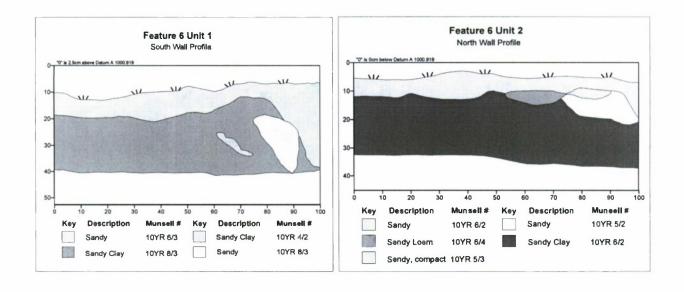


Figure 29: Feature 6 Unit 1 Profile of South Wall and Unit 2 Profile of North Wall (digitized by T. Hornyak)

Artifacts

Very few artifacts were recovered from excavations of units 1 and 2. Of those the majority were wire nails and single stranded, two point barbed wire fragment (early manufacture date of 1886) associated with fence construction.

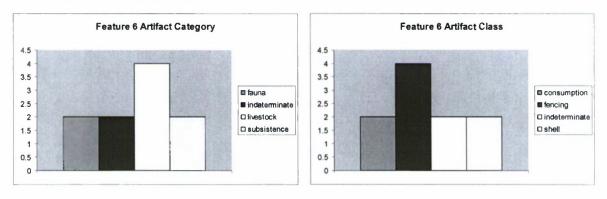


Figure 30: Feature 6 Artifact Categories and Classes

General Description

Feature 7 (Feature 3 on the 1984 site form) is a circular sandstone slab area adjacent to Feature 6. One unit was placed in this feature (EU 40).

Excavation Description

EU 40 was placed in the southern end of the feature to determine depth of cultural deposition. Only a few artifacts were recovered in the first 5 cm. The rest of the excavation was sterile. The unit was excavated to a final depth of 33 cm below the surface and did not reveal any information that would suggest the stones were actually a cultural feature. They are most likely a result of the natural topography and drainage.

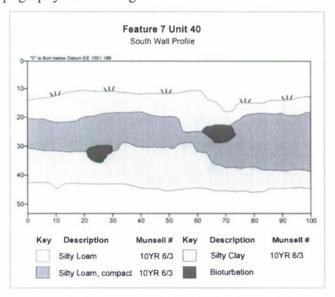


Figure 31: Feature 7 Unit 40 Profile of South Wall (digitized by T. Hornyak)

Artifacts

A small metal buckle associated with horse tack strapping was recovered as well as two wire nails.

General Description

Feature 8 (Structure 6 on 1984 site form) is a depression/dugout located approximately 50 m west of the site, outside the perimeter fence. It is approximately 5.5 m square. Three units were placed in the middle of this feature running east to west (EU 5, 6, and 7).

Excavation Description

EU 5 was set up along the eastern edge of the depression with the eastern half of the unit extending over the feature boundary. In the first 15 cm of excavation, several pieces of window glass were recovered from the eastern edge. After that, the unit was sterile and did not define the boundary of the feature as expected. Final excavation depth was 50 cm below the surface.

EU 6 was located in the center of the depression 1 m to the west of EU 5. The eastern half of the unit had vehicle tracks that ran north to south. The tracks were excavated separately from the rest of the unit. The western half of the unit was excavated first. Not much was recovered in the first 15 cm, but in Lot 3, some charcoal was encountered and large pieces of counter glass and several pieces of tar paper were recovered. Lot 4 revealed more counter glass and a scatter of other artifacts including a small fragment of purple colored pencil and a white pearlized button. Lot 5 began excavation in the vehicle track area. Artifacts began to appear about 5 cm below the level in which they were recovered in the non-track area suggesting a compression effect from the vehicle. Artifacts were found for the next 18 cm and then the rest of the unit was sterile. Final excavation depth was 60 cm below surface.

EU 7 was excavated 1 m east of EU 6. This unit also had vehicle tracks running through the east half of the unit. Like the other units in this feature, the tracks were excavated separately and first in this case. At about 30 cm below the surface artifact density increased dramatically and three large flat rocks (30 to 40 cm in size on average) that extended north to south through the center of the unit were uncovered. Lot 4 began excavation of the non-vehicle track area. Tar paper and other small artifacts were recovered throughout the next 20 cm until the flat rocks were encountered again. Some evidence of adobe melt was noted near the stones. The entire unit

began to be excavated as a whole in Lot 7 and the stones were removed. A large metal (cast iron) fragment was found underneath the southern most stone. This suggests, like in Feature 2, an earlier occupation of the site. Further definition or clarification that the stones were part of a wall could not be made as no indication of additional stones in the north or south profiles were found. Final excavation depth was 65 cm below surface.

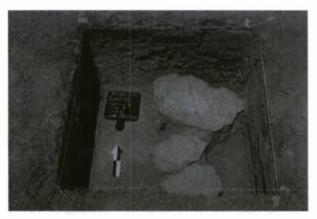


Figure 32: Units 7 Lot 8 North Facing

A full profile drawing was done of all three units, which show the compression cracks in the sidewalls of each unit caused by the vehicle that drove through the feature.

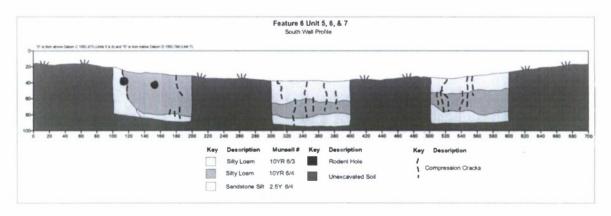


Figure 33: Feature 8 Profiles of Units 5, 6 and 7 South Wall (digitized by T. Hornyak)

Artifacts

The majority of the artifacts recovered from this feature were structurally related. They included several samples of tar paper and tacks, wood fragments, counter glass, window glass, wire nails

and 2 cut nails (manufacture date 1830-1902). Several small fragments of flat metal were also found that were most likely flakes from a portion of a metal wagon rim found in EU 7.

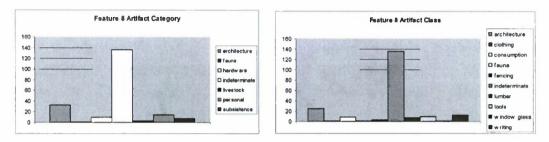


Figure 34: Feature 8 Artifact Categories and Classes

Feature 9

General Description

Feature 9 is a possible depression/dugout. It was not originally identified in 1984. There was some indication that this depression was created by recent military activity. It is located approximately 32 m southeast of Feature 8. There are no artifacts or indication of a structure associated with this feature and therefore no excavation units were placed in this area.

Feature 10

General Description

Feature 10 (Structure 6 on 1984 site form) is a possible privy located almost due east of Feature 2. Although identified on the 1984 site forms, this rough circular alignment of stones did not exhibit the characteristics of either a privy or trash pit area. There were very few surface artifacts and most were probably due to sheet wash from the main residence feature. No excavation units were placed in this feature.

Surface Artifacts and Diagnostics

Surface Artifacts

On the existing site grid, a 20 x 20 m grid that extended over the main residential features (3, 4 and 5) was designated to obtain a surface collection sample. Twenty 1 x 1 m squares, which represented a 5% sample of the 20 x 20 m area, were surface collected. The collected squares

were from a transect that cut across the area diagonally from the northeast to the southeast of the collection grid.

A total of 134 artifacts were collected. Not too surprisingly, the surface sample of artifacts revealed a balanced collection of structural and domestic artifacts associated with what we knew were the main domestic features of the site. The majority of artifacts were comprised of bottle glass and small whiteware fragments. Several of the glass fragments were amethyst glass with a TPQ of 1880. One personal artifact, a garter clip, and a possible pan handle were also recovered. The remaining artifacts were structurally related and included window glass, wire and fence staples.

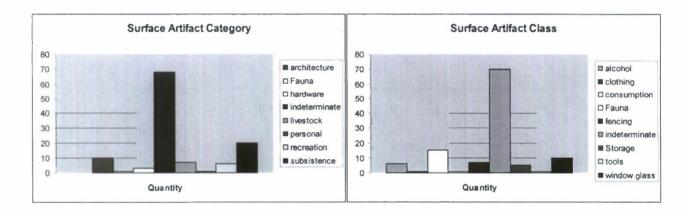


Figure 35: Surface Artifact Categories and Classes

Diagnostic Artifacts

In an effort to obtain a better sample of temporal data, a pedestrian survey was conducted inside and outside of the northern fence perimeter to collect diagnostic artifacts. Several diagnostics, mostly metal or of a large size, were not collected but were inventoried in the field specimen list.

A total of 174 diagnostics were recorded and analyzed. Fifty one of those artifacts were actually datable. The chart below indicates a mixture of temporal dates associated with them. The majority of the artifacts were amethyst glass and white earthenware that have early manufacture dates into the late nineteenth century. Amethyst glass, in particular, has a manufacturing date range between 1880 and 1918. Of all of the artifacts that could be dated, the most diagnostic were the sanitary cans that were recovered from the site that do not have a manufacture date

earlier than 1904. This would indicate that even though there is a wide range of dates represented at the site, the site was most likely occupied in the early twentieth century.

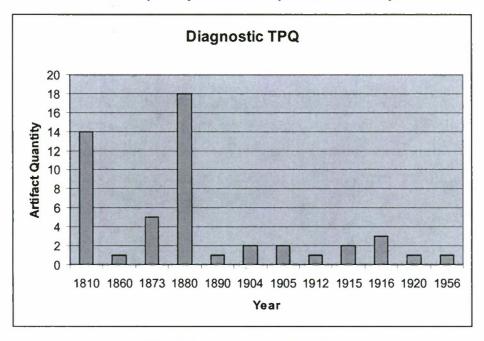
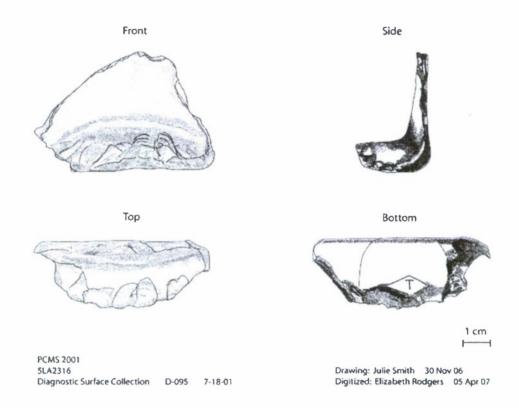


Figure 36: Diagnostic Artifact TPQ

Worked Bottle Glass



 $Figure\ 37:\ Worked\ glass\ from\ diagnostic\ surface\ collection-illustrations\ by\ Julie\ Smith\ and\ Elizabeth\ Rodgers$

Worked Bottle Glass

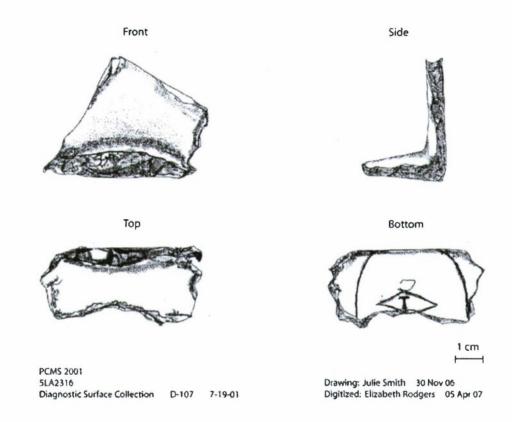


Figure 38: Worked glass from diagnostic surface collection – illustrations by Julie Smith and Elizabeth Rodgers

Archaeological Potential and NRHP Assessment

This site is eligible for the NRHP under criterion d, based on the archaeology. Though there are other sites of this period and function on the landscape of southeastern Colorado, we were unable to find excavated examples of any of them. Brown Sheep Camp is an important sheep ranching site, but is not comparable to this one, and probably is not representative, as this one is, of the many sheep ranchers who built on the landscape but did not stay for more than a decade or two. There are some comparative examples on the Western Slope in terms of function and period,

however the climate, terrain, and historical demographics differ there, so this site would occupy a different geographic sample universe.

Furthermore, the testing excavation described here has not entirely exhausted the archaeological research potential of this particular site. We put in the limited number of excavation units necessary to assess tank damage, but not enough to adequately test the different features, some of which yielded artifacts from their top 15 to 30 cm. At the cistern (Feature 5), which we believe was filled in one episode, probably at site abandonment, we had to stop digging not because we had hit the base of cultural materials, but because there was a physical hazard. We did recover what we believe to be a sample of the materials available from all other areas of the site, both surface and subsurface, but given the area excavated, that sample is probably not representative. During archival research efforts, we found that there is minimal information on who exactly might have occupied this site, though there are possibilities; there are other examples in the region, probably even on PCMS, where there would be more archival and perhaps architectural information to complement the archaeological record. It may well be that there is more archival information of use at the office of titles and abstracts in Trinidad, but these records are now privately owned and expensive to access, and we did not have the budget to pursue that avenue of research. Until such archival data becomes available, and given the limited sample we were able to excavate, we cannot argue that this site's research potential is exhausted.

Chapter 4

5LA2359 Sheep Camp

Introduction

Site 5LA2359 is a sheep camp, probably associated with 5LA2366 and sheep ranching activities of Vigil, S. T. Brown, and B. Gutierrez and Brown Sheep Camp (SW of here). Features include a shallow depression (Feature 2) with a surrounding, very light artifact scatter of domestic debris, including can, glass, spoon, and ceramic. About 10 m south of Feature 2 is a juniper with high grass where an animal was probably tethered. (It is the only juniper in area with such rich, tall grass beneath, in even circumference around it). There are two corrals made of piled juniper limbs, one north of Feature 2 and one in the south portion of the site, with no associated artifacts. Some metate fragments and light flake scatters located at the site had no observable association with historic scatters or features.



Figure 39: 5LA2359 Site Overview

Feature 1

Description

Feature 1 is a juniper limb (brush) corral that is approximately 18 x 15.5 m in size.

Description

Feature 2 is a shallow depression dug into limestone bedrock that is 7 x 5 m in size. The 1984 site form notes milled lumber as part of a superstructure but there is no remaining evidence of it now. There was a small concentration of domestic debris just south and west of the feature. This scatter includes the button, flatware handle, glass, and tin can. There is also a very diffuse scatter of cans and barbed wire over the rest of the site. Most material seems to be on the surface and much of that was collected in 1984.

Feature 2

Description

Feature 2 is a juniper limb (brush) corral that is approximately 11 x 12 m in size.

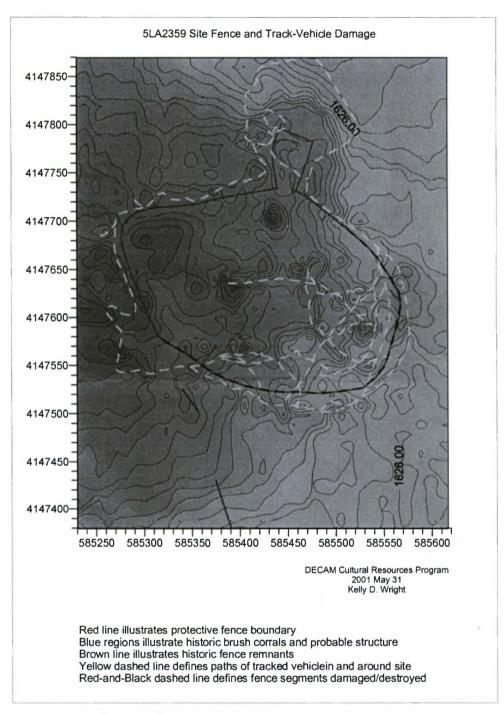


Figure 40: 5LA2359 Site Map and Tracked Vehicle Damage

Excavation

Shovel probe testing was the best method for determining the extent of archaeological potential at the site. One 20 x 25 m grid was placed over the area of the depression feature and the associated artifact scatter. Each 30 x 30 cm shovel probe was placed at 5 m intervals for a total of 30 shovel probes excavated at this site. The probes were excavated in 10 cm intervals with Munsell color samples taken at the top and the bottom of the probe.

Most of the shovel probes reached a limestone layer that broke off in plates between 10 and 30 cm below the surface. The majority of them were very shallow and sterile. Probe 16 produced a few flat metal fragments and cut nail shanks. The depression was dug into this layer with the back-dirt piled around the outside. The depression is shallow and was most likely a temporary structure for the sheepherders.

Artifacts

A total of five artifacts were recovered from the shovel probes. They included two cut nail shanks (TPQ 1830), one metal fragment, one small piece of aqua glass and a .42 caliber copper rim-fire cartridge casing manufactured by the Union Metallic Cartridge Company (UMC) in 1867.

Survey

After excavation a pedestrian survey was conducted of the site in 5 m transects to note any concentrations of prehistoric artifacts and to flag temporally diagnostic items. Several light scatters of prehistoric materials were found on the northwest edge and northeast quadrant of the site. Those artifacts include basalt and Alibates-looking chert flakes and sandstone metate fragments. Historic artifacts included amethyst and aqua glass, sanitary cans, barbed wire (double stranded, twisted, with barbs twisted two times around one strand). This would date the site to between 1903 and 1930 during its heaviest use. There is some evidence of earlier dates from the cartridge collected and reported above.

Prehistoric Component

At least two small lithic scatters are present, including numerous flakes of varying materials. Materials include one mano fragment, two metate fragments, and several basalt and quartzite

flakes, in addition to materials collected in 1984. The association of these items with one another, and away from historic period features, suggests that these were not contemporaneous with the historic period occupation.

Archaeological Potential and NRHP Assessment

This site is not eligible for listing on the NRHP. Nowhere on this site is there much in the way of soil depth (10 to 40 cm around Feature 2). The integrity of the site has already been seriously compromised by tracked vehicle damage and the surface artifact distributions, both historic and prehistoric, are light and do not hold much promise for yielding more information. Out of 30 shovel probes that went to bedrock, we found two cut nails and one piece of glass and there was considerable rodent disturbance. Rodents may have transported these items from the surface.

Chapter 5

5LA2366 Sheep Camp

Introduction

Site 5LA2366 is a relatively extensive sheep herder camp which seems to display two components and may have been used seasonally. The first occupation was homesteading and sheep ranching and dates from 1870 to 1890. The second occurred during the era of larger scale sheep herding and dates from 1910 to 1930. There are two definite and one possible dugout features. The first two have associated hearth and ash features and an artifact scatter (with earlier 1870-1890 materials). There is a cistern, a pile of posts (possible dugout roofing), and a corral complex with another associated concentration of materials dating between 1910 and 1930. Most materials were collected by original recorders in 1984. There is also a shallow linear swale on the southeast area of the site that may be an old road into the site.



Figure 41: 5LA366 Site Overview

Feature 1

Description

Feature 1 is a post-and-wire corral with brush limb construction. Its dimensions are approximately 26 x 49 m.



Figure 42: Feature 1 View West

Description

Feature 2 is a brush corral with juniper limb construction. Its dimensions are approximately 10 x 15 m.

Feature 3

Description

Feature 3 is a brush corral with juniper limb construction. Its dimensions are approximately 12 x 8 m.



Figure 43: Feature 3 View North

Description

Feature 4 is a plaster-lined cistern with a superstructure of milled wood, wire and sheet metal. It is 1.6 m in diameter.



Figure 44: Feature 4

Feature 5

Description

Feature 5 is a shallow dugout dug into limestone with no superstructure visible. The dimensions are approximately 5 x 7 m.



Figure 45: Feature 5 View North

Description

Feature 6 is a shallow dugout dug into limestone with no superstructure visible. The dimensions are approximately $5 \times 4 \text{ m}$.



Figure 46: Feature 6

Feature 7

Description

Feature 7 is a shallow dugout (that may be natural) that has to be dug into limestone with no superstructure visible. The dimensions are approximately 4 x 2.5 m.

Description

Feature 8 is a juniper post dugout with milled lumber construction. The dimensions are approximately $3 \times 4.5 \text{ m}$.



Figure 47: Feature 8

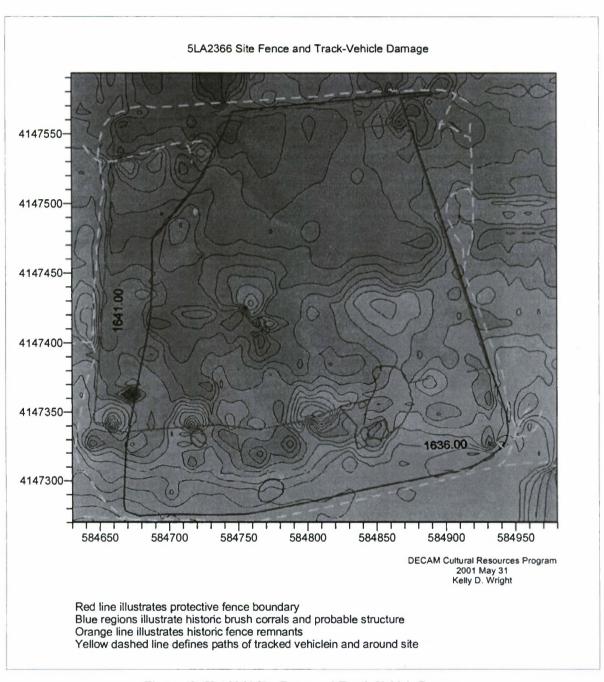


Figure 48: 5LA2366 Site Fence and Track-Vehicle Damage

Excavation

It was decided that shovel probe testing would be the best method for determining the extent of archaeological potential at the site. Two grids were designated at the site. One 30 x 30 m grid was placed to cover the three depression features and associated artifacts. One 30 x 40 m grid

was placed around the cluster of dead trees and timber that is located just east/northeast of the main large brush corral. This grid bisected the soil change/depression area around the trees. Each 30 x 30 cm shovel probe was placed at 5 m intervals for a total of 49 shovel probes on the 30×30 m grid and 63 on the 30×40 m grid. The probes were excavated in 10 cm intervals with Munsell color samples taken at the top and bottom of the probe.

In the majority of the probes, bedrock was encountered on average of about 30 cm below the surface. Some of the probes were excavated as deep as 50 cm below surface. Most of the artifacts were recovered from within the first 10 cm of excavation. On average there was 15 to 20 cm of excavation before hitting soil carbonates. The majority of probes were closed at 30 to 35 cm below surface.

Two shovel probes provided evidence for cultural material below the first 10 cm of excavation. Shovel Probe 23 uncovered bone between 10 and 25 cm below the first flecks of calcium carbonate. In Probe 24, a concentration of charcoal was encountered in the north/northeast in association with a rib bone fragment. The charcoal stain extends 10 to 25 cm below the surface into the calcium carbonate level.

Artifacts

A total of 269 artifacts were recovered from the shovel probes. Superficially the artifact density would seem to be light, however the site was surface collected in 1984. The shovel probes suggest considerable cultural material 5 to 25 cm below the surface with largest density in the first 10 cm in area of shallow depressions (Features 5 and 6) and 10 to 25 cm around Feature 8. The largest artifact categories include artifacts associated with the structural elements, such as window glass and nails. There was also a large proportion of faunal remains recovered from the probes. Most of the domestic artifacts included clear and amber bottle glass fragments.

Feature 5 and 6 artifacts date to the late nineteenth century. Some of those artifacts include hole-in-cap cans, cut nails and amethyst glass. Artifacts, such as wire nails and sanitary cans, around Feature 8 date to the early twentieth century. This would suggest a multi-component site in which component one, homesteading and sheep ranching, dates from 1870 to 1890 and component two, larger scale sheep herding, dates from 1910 to 1930.

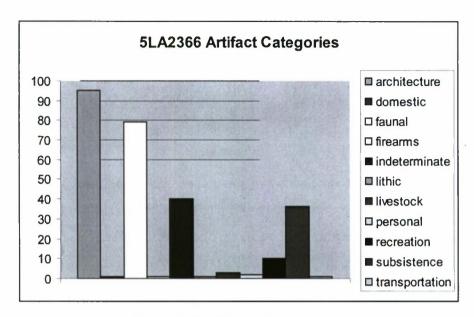


Figure 49: 5LA2366 Artifact Categories

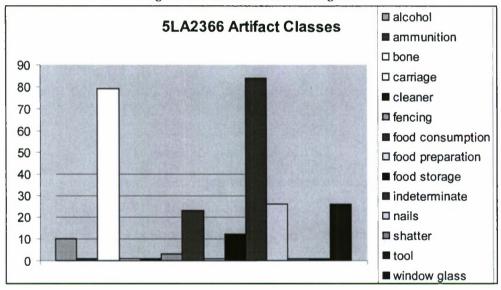


Figure 50: 5LA2366 Artifact Classes

Lithic Materials (possibly pre-contact period)

This component consists of a light chipped stone and groundstone scatter. There are several mano's and a few flakes (basalt) that may represent a prehistoric or historic Native American occupation or may have been used by Hispanic sheepherders.

Archaeological Potential

This site is eligible for listing on the NRHP under Criterion D. The archaeological potential here is considerable. Even though there is no unambiguous archival information about ownership or occupants, that is the case at many such secondary sheep camps and we can narrow it down to several historically and culturally important possibilities; this area had one of the large, later sheep ranches run by a Hispanic owner. This site is important because again, sheep ranching is poorly understood in the southeastern part of the state where terrain, climate, and historical demographics differ considerably from elsewhere. On this site there seems to be sheep ranching activity from very distinct periods (1870 to 1890 and 1910 to 1930), which could provide a nice comparison/picture of change in sheep ranching before the advent of big cattle ranching (1880) and into that period. Activities on site from the different periods seem to be spatially discrete enough to distinguish the two for comparison. The site has good temporal resolution and clarity as well as good overall site integrity.

Chapter 6

National Register of Historic Places Evaluations for Management Activities

5LA2316

This site is potentially eligible for listing on the NRHP, under criterion d, based on its importance as representative of a particular time and local cultural geography, including the transition to more localized and invested sheep ranching by increasingly (but not exclusively) Anglo-American ranchers around the turn of the twentieth century. Although there may be other recorded similar examples of such sites in the region, none have been explored archaeologically; though work at Brown Sheep Camp is significant, that site represents a different and somewhat atypical sheep operation over generations. Although some may have better archival context, fewer have comparable clarity; a clearly defined and relatively short occupation without later occupations to cloud the interpretation.

Tracked vehicle damage to the site is not extensive, although this outcome is more a function of the type of site it is than the potential of tracked vehicle damage to archaeological sites generally. Soils were compressed by weight of the vehicles, and that compression and resulting impacts on soils and potentially on artifacts extended at least 70 cm. below the current ground surface (See Appendix 1). Had the tracked vehicles happened to run over the foundation of the domestic structure or the cistern, for example, the negative impacts on the archaeological context would have been much more extensive.

We recommend that the Army continue to protect and avoid the site and maintain the fence, at least until such time as a larger sample of the site can be excavated, and more detailed land use and occupational information can be accessed through the Trinidad Abstract and Title Company. The latter unfortunately charge exhorbitantly and by the half hour for access to what were once public records.

5LA2359

This site is ineligible for listing on the NRHP. Occupation was ephemeral, features few, and there is little site depth. As a result, tracked vehicle damage was minimal here. Furthermore, given that there are similar yet better-defined sheep camp sites such as 5LA2366 in the vicinity, we feel that this site has limited potential for further research in comparison. We recommend no further archaeological work on it.

5LA2366

This site is potentially eligible for the NRHP, under criterion d. It has two clear, stratigraphically distinct occupations that span culturally and historically important and under-studied spans of time in the context of sheep ranching in southeastern Colorado, or indeed Colorado generally (Church and Clark 2007).

The site was not extensively damaged by tracked vehicles, but that is because the vehicles did not happen to hit the features with most archaeological potential. We recommend that the Army avoid and continue to protect the site, at least with the existing (presumably repaired) fencing. However, given that the fence did not deter damage to begin with (perhaps because wire fencing, even with signs, is hard to see from inside a tracked vehicle), we would like to see the Army implement further protection measures on such sites, beyond the fencing.

Acknowledgments:

We wish to thank Steve DeVore at MWAC for his great patience and support. I (Minette Church) also want to thank the wonderful field crew for this project. Pamela Cowen was Field Assistant on the project and is responsible for oversight of all the artifact analysis, while Kimberly Henderson got her first experience doing all the analysis work while she was still a UCCS undergraduate. Even while juggling paid work and graduate school, Kimberly put more hours into this project than anyone else, and I very much appreciate it. Michael Prouty, UCCS undergraduate, analyzed artifacts from the diagnostic surface collection. Julie Smith drew and Elizabeth Rodgers digitized the illustrations of worked glass artifacts, both in the body and on the cover of this report; both did a wonderful job. Our fine UCCS field crew members included John R. Gust, Kimberly Henderson, Jonathan Sanchez, and Cheryl Wagner. Kevin Baldwin of the Midwest Archaeological Center kindly helped us with feature mapping, and these maps were digitized for this report by UCCS undergraduate Tani Vascholtz as a class project. Other maps were digitized by Kimberly Henderson and Thomas Hornyak. The authors also wish to thank Larry Loendorf and his New Mexico State University crew as well as Kevin Baldwin and Mike Chidley from the Midwest Archaeological Center for sharing housing with us at Red Rocks Ranch, and Larry Loendorf in particular for his patience and support.

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Appendix 1 – Vehicular Impact on Matrix and Artifacts, 5LA2316, by Rollin Craft

<u>Note</u>: What follows is an undergraduate research paper, presented here exactly as it was submitted. There are some formatting problems and some minor content flaws that could not be addressed for the submission of this report, but overall the work is significant and the authors felt it important to include it.

Vehicular Impact on Matrix & Artifacts Pinon Canyon, Colorado

Statistical Analysis & Methods Section

By Rollin Craft 12/15/01

Abstract

Test samples suggest that in areas where military vehicles have passed that the matrix, archaeological matrix and artifacts in the Pinon Canyon research area have undergone significant and considerable change. Analysis indicates that a change in the size and proportions of matrixual material has taken place due to crushing and pulverizing. This presents itself in the fact that in vehicular traffic (tracked vehicle) areas a larger body of material is lost to "water screening" during the sample preparation process. Referred to as "water screening", this process washes away all of the very fine material comprising the majority of the soil matrix, while capturing only the larger material in a fine mesh screen.

NOTE 1: Some Microsoft Excel table cell contents did not convert to word format. The report authors have been unable to reach Mr. Craft to remedy this problem.

NOTE 2: In embedded graphs where the caption reads "Tank Impact" rather than "Tracked Vehical Impact" the authors were unable to modify the text.

Contributors: Dr. Minette Church, Cheryl Wagner, John Gust

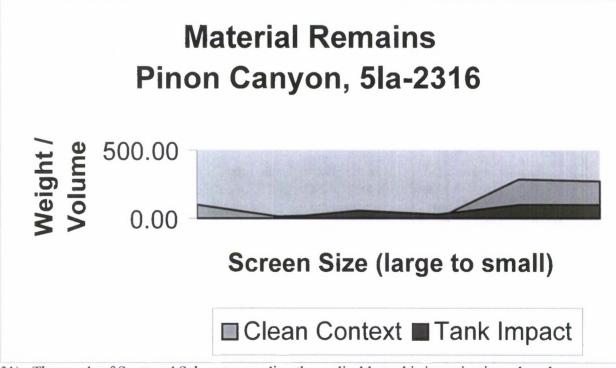
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Introduction and Overview

The overall goal of this research is to measure and compare the impact of tracked vehicle traffic to archeological material remains. This includes determination of vehicular impact in the areas of artifact recovery, soil properties in archeological matrixs, as well as the impact to archaeological matrix associated with artifacts. In this section we determine and assess an approach to a quantitative distributional analysis of the rock, gravel, artifacts and other materials contained in the archaeology comprising the Pinon Canyon research site. Specific analysis includes the isolation of significant and quantifiable differences between those areas where tracked vehicles and other military vehicles have broached the site and those where they have not.

In the words of Gordon R. Willey and Charles R. McGimsey during their research work on stratigraphy in Panama through Harvard University, "if statistical significance is indicated, the sample differences probably represent actual differences which exist between the entire universes from which the samples were taken" (Willey and McGimsey 1959: 298). This difference in "universe" suggests a hypothesis that a distinct difference may exist in the proportional size of screenable materials and matrix. Hence, an approach to the assessment of vehicular impact. In addition, an assessment will also be made of the physics involved in the crushing that occurs when a "66 ton tracked vehicle" pulls a "u-uey" across this site (Segin 2001:



31). The words of Scott and Schoustra are directly applicable to this investigation when they write "Because of dynamic stresses generated in soil as a result of machinery, . . . it is becoming necessary to study soil behavior at increased rates of stress application" (Scott and Schoustra 1968: 135).

In the chart above, as the screen size is reduced (from left to right), distinct differences can be seen in the weight/volume of material remains sampled between areas of tracked vehicle impact and clean matrix (non-impact). This suggests that in tracked vehicle impacted areas a shift in material remains towards smaller particles is created due to crushing and pulverizing. The writing of Susan Limbrey supports this approach to analysis when she writes "If samples are taken of materials which are removed they can be used in conjunction with soil descriptions for comparison with materials appearing at a later stage in the excavation. Direct comparison of materials from different parts of the site facilitates correlation between discontinuous layers and interpretation of their variation and distribution" (Limbrey 1975: 277). Thus, we gain insight through a comparison of the volume and weight ratio of material remains between areas of impact/non-impact due to vehicular damage.

Assumptions

The unit samples are independent and the number of samples are large enough that the central limit theorem applies (Hillel 1980).

The calculation of tracked vehicle treads that "weigh over 1.5 tons creating 14 lbs. per square inch ground weight" can be used to determine the overall weight per square inch of the 66 ton M1A1 Abrams main battle tank (Segin 2001: 31). Since a ton is 2,000 lbs. we are able to calculate the area of the two parallel tracked vehicle treads using the following formula for solution:

```
1.5(2000)/X = 14

3000 = 14 X

X = 214 \text{ sq. inches}
```

With this we can now estimate the pressure of an M1A1 Abrams main battle tank in:

```
66 (2000) / 214 = lbs. per sq. inch
616 lbs. per sq. inch
```

Another assumption involves the geology of the rock, it's physical properties, as well as that of other matrix associated with this site. Halka Chronic describes the general area as "low hills north of the [Arkansas] river are surfaced with Cretaceous limestone . . . In river bluffs below John Martin Reservoir Dam the Dakota Sandstone, Colorado's oldest widespread Cretaceous rock, is well exposed" (Chronic 1980: 61-63). As the description provided by Andrew M. Taylor closely depicts the matrix found in the waterscreen samples, this student assumes the material to be Denver Formation described as "composed of alluvial sediments . . . claystone, siltstone, sandstone, and conglomerate. Many of these deposits are comprised of andesitic materials derived from erosion of volcanic rocks. . . These sediments were alluvial fan and bajada deposits" (Taylor 1999: 87). In addition, Taylor describes the eastern plains as "modern soils of Pleistocene and Holocene age [that] overly Tertiary and uppermost Cretaceous rocks" (1999: 138).

According to R.C. Selley limestone is a carbonate rock of which a portion is comprised of cement; described as a material in which "calcium carbonate (CaCO₃) is the dominant constituent . . . Ancient limestones are composed largely of low magnesium calcite . The commonest cement in limestones is calcite termed spar, or sparite" (Selley 1982: 118-125). As a

source of commercial limestone, the Cretaceous limestone found in Colorado "is not of much commercial importance" (Knibbs 1924: 29). This is key in that we will assume in this analysis that the low value of the Cretaceous limestone is indicative of small amounts of calcium carbonate, a.k.a., calcite. As such, we will use a range of values associated with the tensile and crushing strength of "mortar made with standard sand (1 lime: 3 sand)" considered to be "strongly hydraulic" due to the aqueous nature of the Cretaceous seas (Knibbs1924: 123). The range of values for tensile strength shall be between "71 and 114 lbs/sq, in, and crushing strength shall be between 170 to 284 lbs./sq. in." While at the high end of the range, this is somewhat consistent with the pressure requirements of pneumatic drills used for quarrying and mining "between 50 and 100 lbs. per sq. inch" (1984: 128). Consideration must also be given to the viability of Cretaceous limestone for road use. Again, I refer to Knibbs in "Limestone for constructional and road making purposes should, as a rule, be hard and tough... Nearly all limestones have a crushing strength well above any load they are likely to carry. It varies from about 70 tons per sq. ft. for a soft oolite to about 300 tons for good marble, and the modulus of rupture (transverse strength) may be one-third to one-half this" (1924: 239). Scott & Schoustra provide evidence of volumetric behavior, as well as the crushing strength of sand in "For sand, the void ratio will not change by very much up to stresses at which the grains begin to crush (>100 psi), whereas for clays, void ratio changes of 100 percent or more are possible as a result of applied effective stresses in the range of engineering interest" (Scott and Shoustra 1968: 114).

The discussion of tensile, transverse and shear strength leads us to the efforts of Dale F. Ritter, where he writes "shear strength of any material derives from three components: (1) its overall frictional characteristic, usually expressed as the angle of internal friction; (2) the effective normal stress; and (3) cohesion. These factors determine shear strength by the well-known Coulomb equation,



Where S is shear strength (in units of stress), c is cohesion, \Box is normal stress, and \Box is the angle of internal friction" (Ritter 1978: 137). In regard to the angle of internal friction, we will be consistent with Ritter when he states "In loose particulate matter of any size, the angle of repose should approximate the angle of internal friction" (1978: 138). Our assumption is that the angle of repose and internal friction is zero. Thus the value of l is applied to the normal stress factor. According to Ritter, "The importance of normal stress is its capacity to hold material together, thereby increasing the internal resistance to shear. In theory, normal stress acting perpendicular to a shear surface . . . is absorbed by the underlying slab at the point of contact between grains. This indicates a difference between unconsolidated clay, debris, and other dirt material and that of solid Cretaceous limestone. With this understanding, we agree with Ritter when he states "Because the effective normal stress directly influences internal friction, it is clear that dry or partially saturated soils, especially those with a high clay content, should have a greater shear strength and stand at higher slopes than equivalent materials that are thoroughly saturated" (1978: 139). In regards to cohesion, Ritter suggests that "the material . . . has no discernible strength when the effective normal stress decreases to zero, a condition that is common in course, unconsolidated detritus. Solid rocks, however, possess shear strength . . . because the constituent particles are packed or cemented together. The strength revealed here is called cohesion, a factor that presumably is unaffected by normal stress.

Analysis

With the assumptions taken into consideration, we are now able to estimate the forces involved when the shear stress caused by the weight of an M1Al Abrams main battle tank crosses the unconsolidated soil material and exerts pressure on the underlying Cretaceous limestone. As similar problems of this nature have been described as "very difficult and complicated" because of the nature of "pore pressure and acceleration effects" we must also concur with the results of these other investigations in that "it appears that the true shearing strength of a cohesionless soil is almost independent of the rate at which the soil is tested, whereas the shearing strength of a cohesive soil increases somewhat as the rate of application of the stress increases" (Scott and Schoustra 1968: 135). Again, we are provided with insight into the difficulty of this assessment when we are told "This is the difficulty of nonlinear problems, and because of the complexity of the mathematics, exact solutions to specific situations have not frequently been obtained" (1968: 147). This estimate of stability "represents some balance between driving forces (shear stress) and resisting forces (shear strength), and can be expressed as the safety ratio:

G_s = resisting force / driving force

 G_s values greater than 1 connote slope stability, but as the ratio approaches unity a critical condition evolves and failure is imminent. . . Theoretically, failure occurs when $G_s = 1$; this value is an excellent example of a geomorphic threshold" (Ritter, 144). Thus, we may conclude that overall slope stability exists in the research area by substitution:

However, we may also conclude that in certain circumstances that vehicular traffic exceeds the crushing strength of 284 lbs./sq. in. by over twice.

Methods

After each unit was excavated to "10 cm deep, random samples from (2) 2 lb, 2.5 oz. coffee cans (2950 ml) were taken from each unit" (John R. Gust, personal communication 2001). Next, the material was subjected to "water screening" through a 1/32 inch nylon screen (Minette C. Church, personal communication 2001). After thorough drying, each sample was subjected to additional screening to determine and establish overall ratios of material. This 4 step process included the use of ½ inch, ¼ inch, and 1/16 inch screens; while the material remaining was also subjected to sorting. The sorting process was then conducted into three broad material classes: weeds/roots, artifacts, and matrix. Once material was screened and sorted, it was subjected to statistical analysis of weight and volume. The results of this process were then entered into a Microsoft Excel spreadsheet to be used in quantitative analysis of sample size, and to determine significance, if it exists. The statistical basis for these processes are described in Appendix C, below.

Results

In the table #1, #2, and #3 below, an analysis of sample size has been conducted for the samples collected from non-impacted units. The actual data for this analysis may be found in appendix A. The estimated sample sizes were based on a 95% confidence and the allowance for 2 gram or 2 ml of error:

	Matrix Volume .25	Weight	Volume	Artifact Weight .125	Volume	Weight	Volume	Matrix Weight
Avg.	246.55			4.32			303.97	332.13
Std Dev	230.24	272.55	4.76	4.70	11.40	2.26	150.74	167.47
Est Sample	15.33	16.68	2.20	2.19	3.41	1.52	12.40	13.07

Table #1, Sample Size estimates for .25 & .125 screen size samples, Non-Impacted Area

	Artifact	Artifact	Weeds	Weeds	Matrix	Matrix
	Volume .0625	Weight .0625	Volume .0625	Weight .0625	Volume .0625	Weight .0625
Avg.	7.50	0.85	10.00	0.53	258.97	259.36
Std Dev	2.89	0.72	14.14	0.81	90.68	105.67
Est.	1.72	0.86	3.80	0.91	9.62	10.38
Sample						

Table #2 Sample Size estimates for ..0625 screen size samples, Non-Impacted Area

	Artifact	Artifact	Weeds	Weeds	Matrix	Matrix
	R.V.	R.W	R.V.	R.W.	RV	RW
Avg.	102.50	18.12	25.00	2.10	278.62	273.86
Std Dev	137.89	59.23	28.87	2.41	112.66	112.71
Est.	11.86	7.77	5.43	1.57	10.72	10.72
Sample						
Size						

Table #3 Sample Size estimates for remaining material samples, Non-Impacted Area

In the table #4, #5, and #6 below, an analysis of sample size has been conducted for the samples collected from non-impacted units. The actual data for this analysis may be found in Appendix B. The estimated sample sizes were based on a 95% confidence and the allowance for 2 gram or 2 ml of error:

	Matrix Volume .25	Matrix Weight	Artifact Volume .125		Weeds Volume .125	Weeds Weight .125	Matrix Volume .125	Matrix Weight
Avg.	61.25	86.17	10.00	0.65	24.58	1.78	91.25	95.77
Std Dev.	92.57	172.82	0.00	0.49	32.08	2.50	109.13	134.55
Est. Sample	9.72	13.28	0.00	0.71	5.72	1.60	10.55	11.72

Table #4, Sample Size estimates for .25 & .125 screen size samples, Tracked vehicle-Impacted Area

	Artifact Volume	Artifact Weight	Weeds Volume	Weeds Weight	Matrix Volume	Matrix Weight
	.0625	.0625	.0625	.0625	.0625	.0625
Avg.	NA	0.20	17.92	2.76	85.42	76.69
Std.	NA	0.17	20.39	4.12	90.54	98.08
Dev.						
Est.	NA	0.42	4.56	2.05	9.61	10.00
Sample						

Table #5, Sample Size estimates for .0625 screen size samples, Tracked vehicle-Impacted Area

	Artifact	Artifact	Weeds	Weeds	Matrix	Matrix
	R.V.	R.W	R.V.	R.W.	RV	RW
Avg.	NA	0.20	54.09	21.67	95.96	76.24
Std. Dev.	NA	NA	60.70	50.62	109.52	105.05
Est. Sample Size	NA	NA	7.87	7.19	10.57	10.35

Table #6 Sample Size estimates for remaining material samples, Tracked vehicle-Impacted Area

Significance

In the tables that follow, the analysis of statistical significance described earlier has been applied to the two sample areas: vehicular traffic, and non-vehicular traffic. The units where vehicular traffic occurred were described by the survey crew as units 1, 2, 3, 6, 7, 14, and 35. Table #7 below, assesses the significance using the 1/4 inch screen. Statistical significance is demonstrated between the Vehicular Damage units and the No Damage units where the absolute value of t0 exceeds that value of 1 and 2 tail T-Dist. This occurs in the columns designated Artifact Volume, Artifact Weight, Weeds Volume, Weeds Weight, Matrix Volume, and Matrix Weight.

		Artifact	Artifact	Weeds	Weeds	Matrix	Matrix
		Volume .25	Weight .25	Volume .25	Weight .25	Volume ,25	Weight .25
No Damage	Average	19.00	8.40	32.00	2.83	246.55	294.36
	Std Dev	18.17	12.75	23.48	3.44	230.24	272.55
2 errors	Est S. S.	4.31	3.61	4.89	1.87	15.33	16.68
95%	Actual	5	7	9	12	28	28
Vehicle Damage					BEAUTIE TO STATE		SIATURE DESCRIPTION
	Average	10	4.8333333	77.5	4.85	61.25	86.166667
	Stdev	0	4.2477445	120.68931	9.39511478	92.567543	172.82221
2 errors	Est S. S.	0	2.0819302	11.097403	3.09626417	9.7188825	13.279653
95%	Actual	3	3	12	12	11	11
t0		1.1078234	0.4905964	-1.066442	-0.5451171	2.5945034	2.0093118
v d.f.		4	7.9175234	12.095515	13.8919138	36.915513	28.877773
New T-Dist 2	tail	0.9812524	0.9807527	0.9804659	0.98043465	0.980193	0.9802323
0.025 T-Dist 1	tail	0.4906262	0.4903764	0.4902329	0.49021732	0.4900965	0.4901161
Table #7, Signif	icance –	1/4 inch scree	en				

Table #8 below, assesses the significance using the 1/8 inch screen. Statistical significance is demonstrated between the Vehicular Damage units and the No Damage units where the absolute value of t0 exceeds that value of 1 and 2 tail T-Dist. This occurs in the columns designated Artifact Volume, Artifact Weight, Weeds Volume, Matrix Volume, and Matrix Weight.

Tittiact	Volume	, milliact	Troight,	1100	do voidino	IVICULIA	VOIG	ine, and iv	attix II	Cigitt.	
			Artifact		Artifact	Weeds		Weeds	Matrix		Matrix
			Volume.	125	Weight .125	Volume	e.125	Weight .125	Volum	e .125	Weight .125
No Damag	e,e	Average		11.43	4.3	2	11.00	1.4	4	303.97	332.13
		Std Dev		4.76	4.7) '	11.40	2.2	.6	150.74	167.47
	2 errors	Est S. S.		2.20	2.1	9	3.41	1.5	52	12.40	13.07
	95%	Actual		7	1	3	4		4	28	29
Vehicle Da	amage		About 1								
		Average		10	0.6	5 24.58	33333	1.73	15	91.25	95.7666667
		Stdev		0	0.4949747	5 32.08	35793	2.495860	2 109	.131385	134.552473
	2 errors	Est S. S.		0	0.7106871	8 5.721	74329	1.595868	35 10.5	526563	11.7174418
	95%	Actual		2		2	10		1	12	12
	t0		0.7947	1941	2.215704	1 -0.85	71767	-0.178000	3.54	575846	3.37946948
	v d.f.			6	12.982620	6 11.99	35604	5.905426	3 28.5	638851	25.5059965
New	T-Dist 2	tail	0.9808	86569	0.9804658	9 0.980	50273	0.98102	22 0.98	023229	0.98025345
0.025	T-Dist 1	tail	0.4904	3284	0.4902329	4 0.490	25136	0.4905	1 0.49	011614	0.49012672
Table #8	, Signifi	icance – 1	/8 inch	scree	n						

Table #9 below, assesses the significance using the 1/16 inch screen. Statistical significance is demonstrated between the Vehicular Damage units and the No Damage units where the absolute value of to exceeds that value of 1 and 2 tail T-Dist. This occurs in the columns designated Artifact Volume, Artifact Weight, Weeds Weight, Matrix Volume, and Matrix Weight.

		Artifact	Artifact	Weeds	Weeds	Matrix	Matrix
		Volume .0625	Weight .0625	Volume .0625	Weight .0625	Volume .0625	Weight .0625
No Damage	Average	7.50	0.85	10.00	0.53	258.97	259.36
	Std Dev	2.89	0.72	14.14	0.81	90.68	105.67
2 errors	Est S. S.	1.72	0.86	3.80	0.91	9.62	10.38
95%	6 Actual	4	13	2	2	29	29
Vehicle Damage							
	Average	#D1V/0!	0.2	17.91666667	2.758333333	85.41666667	76.69166667
	Stdev	#D1V/0!	0.173205081	20.3892054	4.115703482	90.54025557	98.08390155
2 errors	Est S. S.	#D1V/0!	0.420404422	4.56128399	2.049316332	9.611868491	10.00427978
95%	6 Actual	0	3	7	11	12	12
t0		#D1V/0!	2.173650323	-0.44710776	-1.23344052	4.038386544	3.810610446
v d.f.		#D1V/0!	13.61691101	2.399424244	10.15028167	20.62949806	22.10022485
New T-Dist 2	tail .	#D1V/0!	0.980434646	0.982325092	0.98054681	0.980302725	0.980280345
0.025 T-Dist 1	tail	#D1V/0!	0.490217323	0.491162546	0.490273405	0.490151363	0.490140173
	-						

Table #9, Significance - 1/16 inch screen

Table #10 below, assesses the significance of all remaining material collected during water screening between the 1/16 inch screen and the screen used for water screening. Statistical significance is demonstrated between the Vehicular Damage units and the No Damage units where the absolute value of t0 exceeds that value of 1 and 2 tail T-Dist. This occurs in the columns designated Weeds R.W., Matrix R.V., and Matrix R.W.

Table #10, Significance – Remaining screen material.

	Artifact	Artifact		Weeds	Weeds	Matrix	Matrix
	R.V.	R.W		R.V.	R.W.	RV	RW
erage	102.50	18	.12	25.00	2.10	278.62	273.86
d Dev	137.89	59	.23	28.87	2.41	112.66	112.71
t S. S.	11.86	7	.77	5.43	1.57	10.72	10.72
ctual	2		11	2	3	29	29
erage	#D1V/0!		0.2	54.09091	21.67273	95.95833	95.95833
dev	#D1V/0!	#D1V/0!		60.69671	50.61915	109.5243	109.5243
t S. S.	#D1V/0!	#D1V/0!		7.869906	7.186946	10.57163	10.57163
ctual	0		1	9	11	12	12
	#D1V/0!	#D1V/0!		-0.71574	-1.17518	3.476786	3.3855
	#D1V/0!	#D1V/0!		3.506915	10.16374	21.14849	21.15702
	#D1V/0!	#D1V/0!		0.981625	0.980547	0.980291	0.980291
	#D1V/0!	#D1V/0!		0.490812	0.490273	0.490146	0.490146
d t	Dev S. S. tual erage lev	R.V. erage 102.50 1 Dev 137.89 2 S. S. 11.86 tual 2 erage #D1V/0! lev #D1V/0! 2 S. S. #D1V/0! tual 0 #D1V/0! #D1V/0! #D1V/0! #D1V/0!	R.V. R.W erage 102.50 18 1 Dev 137.89 59 2 S. S. 11.86 7 tual 2 erage #D1V/0! lev #D1V/0! #D1V/0! 2 S. S. #D1V/0! #D1V/0! #D1V/0! #D1V/0! #D1V/0! #D1V/0! #D1V/0! #D1V/0!	R.V. R.W erage 102.50 18.12 1 Dev 137.89 59.23 2 S. S. 11.86 7.77 tual 2 11 erage #D1V/0! 0.2 lev #D1V/0! #D1V/0! 2 S. S. #D1V/0! #D1V/0! 4 #D1V/0! #D1V/0!	R.V. R.W R.V. erage 102.50 18.12 25.00 1 Dev 137.89 59.23 28.87 2 S. S. 11.86 7.77 5.43 tual 2 11 2 erage #D1V/0! 0.2 54.09091 lev #D1V/0! #D1V/0! 60.69671 2 S. S. #D1V/0! #D1V/0! 7.869906 tual 0 1 9 #D1V/0! #D1V/0! -0.71574 #D1V/0! #D1V/0! 3.506915 #D1V/0! #D1V/0! 0.981625	R.V. R.W R.V. R.W. erage 102.50 18.12 25.00 2.10 l Dev 137.89 59.23 28.87 2.41 e.S. S. 11.86 7.77 5.43 1.57 tual 2 11 2 3 erage #D1V/0! 0.2 54.09091 21.67273 elev #D1V/0! #D1V/0! 60.69671 50.61915 e.S. S. #D1V/0! #D1V/0! 7.869906 7.186946 tual 0 1 9 11 #D1V/0! #D1V/0! -0.71574 -1.17518 #D1V/0! #D1V/0! 3.506915 10.16374 #D1V/0! #D1V/0! 0.981625 0.980547	R.V. R.W R.V. R.W. RV. erage 102.50 18.12 25.00 2.10 278.62 1 Dev 137.89 59.23 28.87 2.41 112.66 25. S. S. 11.86 7.77 5.43 1.57 10.72 10.14 2 11 2 3 29 11 2 3 29 11 2 11 2 11 2 11

Conclusion

As the the "cushioning" material between a bedrock of Cretaceous limestone and a variety of military vehicles, which may include a 66 ton M1A1 Abrams main battle tank, test samples suggest that the matrix and artifacts in the Pinon Canyon research area where vehicles have passed have undergone considerable change. The analysis indicates that a significant change in the size and proportions of matrix material has taken place due to crushing and pulverizing. This presents itself in the fact that in vehicular traffic (tracked vehicle) areas a larger body of material is lost to "water screening" during the sample preparation process. Referred to as "water screening", this process washes away all of the very fine material comprising the majority of the soil matrix, while capturing only the larger material in a fine mesh screen. The evidence suggests that the weight and pressures exerted on the soil matrix by vehicular traffic has pulverized and crushed it into finer particles. This occurs across the breadth of screen sizes used in the study.

Possible points of further investigation:

The statistic, referred to as "the chi-square, test for k samples" might be used to evaluate possible significance to lot or depth and associated matrix that is impacts the most or the least (Mason, 425-429). In addition, a further process of data normalization, might also be useful as a comparison of matrix ratio loss pre and post water-screening.

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Appendix 1A, Non-Impacted Context Data

F Unit Lot

			Artifact	Artifact	Weeds	Weeds	Matrix	Matrix	Artifact	Arufact	Weeds	Weed	Matrix	Matex	Armact	Armact	Weeds	Weeds
			Volume 25	Weight .25	Volume .25	Weight	Volume 25	Weight 25	Volume	Weight .125	Volume .125	Weight .125	Volume .125	Weight	Volume .0625	Weight .0625	Volume .0625	Weigh .0625
1	11	1			50	1.5	85	92.9	Name I	BREET,			190	195.8	9.3728			
1	11	2			20	0.4	150	161.4	10	2.9			130	130.4		0,4		
1	11	3			20	3.6	110	96.9		0.4			210	182.7	5	0.4		
1	11	4					60	61.3					200	209.9				
1	11	5	10	1.1		0.3	110	112.7		2.8			230	222.8	5	0.8		
1	11	6					60	65.5					300	345.3				
1	11	7					100	116.3	5	13.1			190	164.5	10	1.2		
1	11	8					200	229.7					480	476.4				
1	11	9					100	99.6					270	334.7				
1	12	4					60	68.9					260	260.4			10	U
1	12 7	7A					50	49.1					150	131.3				
3	33	0	50.	35,8	20	6.6	800	758.5	10	14.3	5	5.4	600	618.3		1.2		
3	33	2					220	272.1					400	495,9				
3	33	3					335	718.4					300	468.7				
3	34	1	20	12.7			1000	925.5	20	8.3			600	606.7		0.9		
3	34	2		1.9			500	488.6	10	2.2			400	452.3		1		
3	34	3					300	277.4		1.1			325	389.6		0.2		
3	34	4					310	365.1					530	570.5				
3 3	4a	1		1	50	12	250	226.5		2.7			300	358.6		0.9		
3 3	4a	2	3	3.4		4.6	200	176.3		2.3			300	301.6		1.7		
3 3	4a	3				0.3	120	151.7	10	0.2	10	0.3	150	160.3		0.3		
3 3	4a	4					225	170.7					300	334.6				
3	42	1	10	2.9	70	3.3	500	699.4	15	5.2	30	1.2	370	439.9	10	2.7	30	1
3	42	2			60	3.2	300	437					570	574.2		0.2		
3	42	3					260	492.5					430	524.1				
4	36	3			10	0.5	230	296.4					270	300.1				
4	39	3					505	910,1		0.6			260	280.6		0		
N r		2			20	0.5	10	16			10	0.3	3 100	99.5			0	
N r	.1	4			0	0	0	0			0) () 0	2.1			0	

Appendix 1A, Non-Impacted Context Data (cont)

Feature	Unit	Fot									
			Matrix	Artifact		Artifact	Weeds	Weeds	Matrix	Matrix	
			Weight .0625	R.V.		R.W	R.V.	R.W.	RV	RW	
	-	=		198.7				50	3	300	212.1
	_	Ξ	2	149						240	159.6
	_	=	3	197.2			0.2			480	358.1
	_	=	4	229.4						150	9'661
	-	=	5	176.9		0	0.1			190	177.7
	-	11	9	321.8						280	350.7
	-	=	7	154.8	5		0.1			180	178
	_	11	8	486.5						440	455
	-	=	6	403						420	808
	_	12	4	291						240	240.6
	-	12 7A		151.8						150	158.9
	3	33	0	334.4			0.2			450	343.9
	3	33	2	326.7						350	334
	3	33	3	309						320	333
	3	34	1	377.3			0.1			400	365.1
	3	34	2	336.6		0	0.3			325	341.9
	3	34	3	324.7			0.1			300	306.5
	3	34	4	141.6						380	417.8
	3 34a		-	297.8		0	0.1			300	285.1
	3 34a		2	248			1.3			300	243.5
	3 34a		3	138.6						110	149.2
	3 34a		4	293.6						275	318.7
	3	42	_	334.7		0	0.1	50	5.1	310	274.4
	3	42	2	402						400	429.7
	3	42	3	346.5						260	311.8
	4	36	3	209.3						170	170.6
	4	39	3	199.2	200	190	196.7			210	188.2
None	12		2	128.2				0	0.3	130	107.7
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Appendix 1B, Tracked vehicle-Impacted Context Data

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Appendix 1C, Hypothesis Testing & Significance

In this section we discuss the formal and statistical basis used in comparing the samples taken from the research area, specifically the tracked vehicle impact and non-impact areas. This includes discussion of hypothesis testing, control of error, determination of sample size, and selection of significance criteria and the appropriate test statistic for this type of data.

Hypothesis testing has evolved into the basis of comparison used for all scientific thought. It can be used to determine whether or not the value of a parameter has changed over time, or differs from one set of circumstances or another. This application of hypothesis testing is central in evaluating the Pinon Canyon set of matrix sample data, to assess apparent differences between vehicular impacted areas and those areas that were not impacted; implying an alternate hypothesis that vehicular traffic has impact on matrix and other material remains.

Using this form of assessment, we demonstrate that the means of screenable material between tracked vehicle impacted and non-tracked vehicle impacted areas are statistically different, the populations are not equal, or one is greater than another. Montgomery tells us that "The alternative hypothesis specified here is called a *one-sided* alternative hypothesis since it would be true either if $\Box_{\Box} < \Box_{\Box\Box}$ or if $\Box_{\Box} > \Box_{\Box}$ " (28). Thus, we formally state the hypothesis for Pinon Canyon vehicular impact as:

 H_0 : Y₁ = Y₂; null hypothesis H_0 : the true state is H_0 ; where there is no significant difference in the mean weight or mean volume of sampled matrix materials when it is screened according to size using $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{16}$ inch screens; comparing between vehicular traffic areas and non-vehicular traffic areas.

 H_0 : Y₁ < Y₂; alternative hypothesis H_1 : the true state is not H_0 , but H_1 ; where there is a significant difference in the mean weight or mean volume of sampled matrix materials when it is screened according to size using $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{16}$ inch screens; comparing between vehicular traffic areas and non-vehicular traffic areas. The vehicular traffic areas have smaller means; thus indicating greater crushing and pulverizing of the matrixual materials in the sample areas where vehicles have passed.

To test this hypothesis we devised a procedure for taking a small random sample, computed an appropriate test statistic, and then either accepted or rejected the null hypothesis H_0 . Part of this procedure required specifying the set of values for the test statistic that leads to rejection of H_0 . According to Montgomery, this set of values is "called the *critical region* or *rejection region* for the test. Two kinds of errors may be committed in the process of testing a hypothesis. In the first case, the null hypothesis may be rejected when it is true, a type I error has occurred. If the null hypothesis is *not* rejected when it is false, a type II error has been made. The probabilities of these two errors are given special symbols:

 $\square = P(type \ I \ error) = P(reject \ H_0 | H_0 \ is \ true)$

\square = P(type II error) = P(fail to reject H₀| H₀ is false)

... The general procedure in hypothesis testing is to specify a value of the probability of type 1 error $\Box\Box$, often called the *significance level* test, and then design the test procedure so that the probability of type 11 error \Box has suitably small value" (Montgomery, 28).

The probability of a type one error may be controlled in the selection of the significance level test. Montgomery provides us with important insight into the control of type II errors with "selection of an appropriate sample size is one of the most important aspects of any experimental design problem. The choice of sample size and the probability of type 11 error \square are closely connected" (Montgomery, 31).

We are told that "the \square error is also a function of sample size. . . the \square error decreases as the sample size increases. That is, a specified difference in means is easier to detect for larger sample sizes than for smaller ones" (Montomery, 31). In the case of this initial assessment, we are using relatively small samples. However, assurances are provided by Montgomery when he tells us the following:

- "1. The greater the difference in means, $u_1 u_2$, the smaller the probability of type II error for a given sample size . . .
 - 2. As the sample size gets larger, the probability of a type II error gets smalller for a given difference in means" (31).

For our purposes, it is necessary to estimate the sample size of what is needed to conduct the hypothesis test indicated above. In the constraints of this project, it is neither feasible nor desirable to collect data on all units in the research area. As such, a scientific sample is necessary. The question arises, "How big a sample should be taken or monitored"? To begin, we take a small, but reasonable number of samples to begin. According to Warrick and Nielson (1980), the sample size "necessary to be within d units of the mean $(1-\Box)100\%$ of the time is

$$N = x^2_{\square}, \square^2 / d^2$$

Where \square is the standard deviation. The normalized deviate x_{\square} can be found tabulated alone or as the two-tailed, student's t value with infinite degrees of freedom" (329). With this, we can estimate the standard deviation of the error population. So, the standard deviation of the error population \square must be estimated using the sample standard deviation s. Thus, the standard error of the mean becomes:

$$s_x' = s / square \ root \ of \ n$$

where,

s stands for the standard deviation of the sample, n is the sample size, and s_x is the symbol set for the standard error of the mean.

The question in this research is "how do we know whether or not we have significantly exceeded our average error rate"? If a series of samples are taken, uncertainty remains as to the quality of the data in the area of matrix that has not been inspected. The question as phrased earlier must be rephrased to read, "How big a sample

should be taken in order to make some claim about the quality of the entire matrix surveyed as a whole? Should the sample be 5 units or 100?" To answer this question, a statement about the amount of error that will be allowed in the accuracy of the claim must be made. It will not be possible to make any claim with complete and absolute certainty, since every unit in the survey area has not, nor can be examined.

In addition, there are three factors, which determine the size of the sample – "none of which have any relationship to the size of the population" (Mason, 304). Recall again that the purpose of a sample is to estimate a population parameter. It is estimated that the true mean weight of each sample is in the interval between 4.886 and 14.256. Depending on the degree of confidence necessary, it may be feasable to use 1, 2, 3 or more standard deviations from the mean to gain the confidence necessary. Logically, if the degree of confidence is increased, the sample size would also, have to be increased (assuming the interval remains the same). According to Mason, "one of the factors related to the sample size is the degree of confidence – the higher the degree of confidence, the larger the sample required to give a required precision" (304).

Mason tells us that "A second factor in determining the size of the sample is the maximum error allowed in estimating the population mean" (304). To illustrate, suppose that the results of our computations derived this result: "We are 95% confident that the true mean is between 500 and 1500". Does it seem likely that a challenge to our statistics would agree? It depends, but, probably not. A confidence limit this wide may indicate great accuracy in some circumstances, in others, it indicates little or nothing to us about the true mean. Instead, we would prefer to state "Using the 0.95 probability, the total error in predicting the true mean should not exceed 2 grams in weight and 2 ml in volume." From the "Student's t Critical Points" table, 95% confidence = 1.96, 99% = 2.576 (Wonnacott & Wonnacott, Table V). Thus the 95% confidence interval is calculated using the standard deviation, which equals the standard error of a sample, (s_x) is multiplied by the value 1.96 from the z table.

That is, $1.96(s_x') = 2$. So the standard error of the mean s_x' is:

$$s_x' = 2 / 1.96 = 1.02$$

 $s_x' = 1.0995$

Thus far, we know:

$$s_x$$
' = s / $square root of $n$$

This solves the question of determining the sample size associated to the amount of acceptable error. There are still two unknowns, s and n. To solve for the number to be sampled, n, the standard deviation must be estimated. This can be done either by taking a small pilot survey, (say 7 units) and using the standard deviation of the pilot sample as an estimate of the population standard deviation, or by estimating the standard deviation based on a knowledge of the population. For our purpose, this degree of accuracy may be too large, however, the point is the approach and the math to support it. In reality, we

would prefer to have a much smaller n, closer to 5. We must also keep the standard error as low as possible in the process. Thus,

$$s_{x}' = s / square \ root \ of \ n$$

 $s_{x}' / 1.96 = 4.685 / square \ root \ of \ 7$
 $s_{x}' / 1.96 = 4.685 / 2.646$
 $s_{x}' = 1.771 * 1.96$
 $s_{x}' = 3.47$

From this we derive, using the 0.95 probability, the total error in predicting the true mean, using a sample size of 7, should not exceed 3.47.

With the question of sample size resolved, we may now move on to the actual test statistics involved. In testing the "null" hypothesis, H_0 : $\Box = a$, between small populations whose variance, \Box_{\Box}^2 and \Box_{\Box}^2 , is known, the test statistic, according to Montgomery is:

$$t_b = y_1 - y_2$$
 /the square root of $(S_{\square}^2/n_1 + S_{\square}^2/n_2)$

 \dots the distribution of t_b is well approximated by t if we use

$$v = (S_{\Box}^2/n_1 + S_{\Box}^2/n_2)^2 / (((S_{\Box}^2/n_1)^2 / n_1-1) + ((S_{\Box}^2/n_2)^2 / n_2-1))$$

as the degrees of freedom" (Montgomery, 34-35).

Chi-Square Test for Significance

As an alternative, it has been suggested that a simple chi-square analysis would be sufficient. In its simplest form, the concept involves comparing the observed results of two individual samples. The statistic, referred to as "the chi-square, one-sample test of significance" is used most commonly for situations of non-parametric testing where the test is "free of any assumptions regarding the distribution of the parent population" (Mason, 374). This approach is applied to data from a "single sample and requires only nominal-level information" The formula for this test of significance, is as follows:

"
$$X^2$$
 = the sum of $(f_O - f_E)^2 / f_E$ with k -1 degrees of freedom" (Mason, 375).

where,

 $f_{\rm O}$ = observed crushing of matrix and artifacts due to tracked vehicle impact $f_{\rm E}$ = expected natural assortment of matrix and artifacts in non-impacted areas

Thus, chi-square deals only with frequency counts resulting from nominal data. The expected natural assortment of matrix and artifacts calculation is a simple statement of probability. Before considering "real" Pinon Canyon data, consider this example:

The expected weight for the 1/2 inch screen, averaging E = 50 gm., for the non-impacted sample group. Assume that the results were a weight of 75 gm in the 1^{st} sample, and 25 gm in the 2nd.

Weigh	it in gms.				
	Observed	Expected	ObsExpected	$(O-E)^{2}$	$(O-E)^2/E$
1 st Sample	75	50	25	625	12.5
2 nd Sample	25	50	-25	625	12.5

The chi-square would be the summation of $(75-50)^2 / 50$ and $(25-50)^2 / 50$, which is 25. To determine statistical significance of this chi-square, this student consulted a Chi-square table for critical values (Mason, Appendix VIII). The degrees in this problem is one and the chi-square required for significance at the .05 level is 3.84; therefore, the frequency with which sample 1 was chosen over sample 2 was statistically significant.

For the purposes of this research there are however a few shortcomings to using the chi-square statistic. Mason describes a situation where "for more than two cells, X^2 should not be applied if more than 20 percent of the f_E cells have frequencies less than five" (380). We have at least 7 cases of 23 or 30.4% of the occurrences are less than five in this early phase of the research. Hence, this student has chosen to avoid the use of chi-square.

Proportional Significance

Another possible examination of interest to this student, was the hypothesis that a proportional significance exists between units where tracked vehicles have passed and those where they have not. Thus we cite the work of Bohrnstedt and Knoke to define the proportion of each sample mean that falls through each screen as complying with the requirement that "the mean of a dichotomous variable is the proportion of cases with the value of $1 \dots$ Since the proportion of a variable with only two outcomes is the mean of that variable, we can do significance testing with the proportions, applying the same formulas . . . to test the hypotheses. The variance of a variable with only two outcomes is simply pq, where q = 1-p" (176-177). This approach is similarly supported by Mason, where the "chi-square test of goodness of fit can also be used if the expected frequencies are not equal" (378).

Again, as there were too many cases where the number of occurrences are less than five, the analysis using this statistic was left for a later time when more data had been collected.

Appendix 2 – Soil Phosphorous Analysis of an Archaeological Site, 5LA2316, by Cheryl Wagner

Note: What follows is a scanned copy of an undergraduate research paper, presented here exactly as it was submitted to the undergraduate thesis committee of the Department of Geography and Environmental Sciences at UCCS. There are some formatting problems and some minor content flaws that could not be addressed for the submission of this report, but overall the work is significant and the authors felt it important to include it.

Soil Phosphorus Analysis of an Archaeological Site Pinon Canyon Maneuver Site Site 5LA2316 Las Animas County, Colorado

Honors Thesis

By: Cheryl Wagner

Department of Geography and Environmental Studies

University of Colorado at Colorado Springs

May, 2002

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Introduction

Studying the presence of chemical phosphorus (P) in soil for the purpose of locating and describing abandoned settlements began over fifty years ago. Since that time this technique, once used only by agronomists, has become a valuable tool for archaeologists. Archaeologists are now using the analysis of soil P to not only locate abandoned settlements, but also to describe the functions of their features, determine the intensity of land use, and to describe the diet of communities. In addition, soil P studies have established themselves useful in a diversity of environments (Wells, et al 2000). As a result, soil P analysis has become a reliable and predictive measure of human activity on abandoned settlements.

The purpose of this thesis is to present the results of a soil phosphorus test and study on the Pinon Canyon Maneuver Site (PCMS) in southeastern Colorado. A brief history of the development of the analysis of soil P on abandoned settlements will be included and the reasons why PCMS is a qualified site for this type of testing will be explained. This study had two main goals. The first goal was to determine whether phosphorus values on this site were significantly higher then areas away from the site. Work by Cavanagh has shown that it is necessary for levels of phosphorus to be different on and off site for soil P testing to be applicable (Cavanagh, et al 1988). The second purpose of this study was to determine if there was a correlation between human activity areas and high soil P density. Human activity areas were determined by prior excavation. From this study it is postulated that a repeatable phosphorus test method for locating historical sites and activity areas can be developed. Such a method could then be used as the primary method for initial site surveying as was first done by Lippi in a study done in Ecuador (Lippi 1988). As a result, archaeologists could quickly and accurately determine the approximate location of human activity areas on the historical site they are studying.

The History of Phosphorus Analysis

Locating, describing, and categorizing abandoned settlements have been foci for archaeologists for over one hundred years. However, the implementation of soil P testing as a source of data has only been in use since the early 1920's, beginning in Europe. Olaf Arrhenius did the first tests in Sweden (Eidt 1984). These initial tests were fairly simple.

He used citric acid to extract and then measure the available P from soil samples. His goal was to discover through the soil analysis whether or not there had been significant increase of soil P in the study areas compared to the control areas, and thus indicating periods of human activity. From his measurements he was able to conclude that the areas that showed increased density of soil P correlated to other evidence of human activity at those locations. This was the first time that this complementary status between human activity and increased soil P density had been shown. However, his method turned out to be fairly imprecise, and new techniques were looked for. Quite a few years later Walter Lorch also began to complete studies of soil P densities in Europe (Eidt 1984). However, he took the analysis of soil P further by looking at the patterns that were revealed from the soil P densities and began to make statements about the functions of the sites. Both of these men were extremely important in the development of soil P analysis testing on abandoned settlements, yet their achievements have been eclipsed by many new studies. For instance, in the late 1940's Johnson and Nicol began testing for total P rather then just available P as the previous studies had (Woods 1977). Briefly, total P is the combined amount of organic and inorganic P, and available P is a specific measurement of soil P that is available to plants. They concluded after testing both total and available P simultaneously on a site that total P was a much better indicator of human activity areas than available P. Since then there have been other studies that have also reached these conclusions and for a long time total P was considered the best measurement for soil P on archaeological sites.

In the early 1950's archaeologists in America began to conduct studies using soil P analysis in America. F. Feigl conducted the most notable of these in work that he did in the late 1950's (Eidt 1984). He introduced the Ring Chromatography test to measure Total P. His extraction method was based on the use of an ammonium molybdate solution combined with nitric acid. The combination of these chemicals on a pea-sized amount of soil would result in a blue coloration appearing if phosphorus was present. Nonetheless, Feigl received a lot of criticism due to the chemicals used and the complexity of the test. H. Gundlach solved these types of problems in 1961 (Eidt 1973:206-210). He changed the reducing agent from nitric acid to ascorbic acid in his test and as a result produced a safe, simple, stable, and fast method for determining the

density of P in soil. What further contributed to the success of his technique, called the rapid spot test, was that it was not limited to the laboratory. It was simple enough that it could be done in the field, an attribute that archaeologists were quick to respond to, as laboratory equipment is often inaccessible in the field. Gundlach used his technique to determine the location, limits, and the functions of various buildings on sites. In addition, he suggested that the diet of the inhabitants could also be revealed through soil P testing. Unfortunately, he never was able to document conclusive evidence for this hypothesis.

R. C. Eidt, who by far has done the most research and testing on soil phosphorus, carried out further refinements of the rapid spot test. He, like most before him, made modifications to the test methods being used at the time. For instance, he changed the HNO3 reagent used for reducing to HCl. This resulted in more visible color reactions. In addition, he developed a system to extract more and different types of data from the spot test. He took a much more detailed look at the process of the test and laid out more features of the test that could be compared to improve it. Through these modifications the rapid spot test became more established as a reliable way to measure Total P and predict the location of abandoned settlements.

Properties of Phosphorus

Phosphorus is one of the many chemicals that occur naturally in the soil, but one of the few that increases relative to human activities. In general the phosphorus that accumulates naturally from plants and animals is not very abundant in the soil. However, through human activities the densities in P and other chemicals such as Nitrogen (N), Carbon (C), and Calcium (Ca), in soil greatly increases. These unnatural additions commonly come from body excreta, cadavers, soil fertilization, and decomposition of organic matter. The increase that results can be measured and interpretations made relating the chemical signature increases to human activity areas. However, the problem with this type of test is that the natural processes of leaching, oxidation, and reduction easily counteract any increase in N, C, or Ca densities from human activity. In addition, the "losses are not linear and are almost impossible to predict with accuracy" (Eidt 1984:22). Phosphorous is the exception. The main reason is because it is not as susceptible to the processes that influence loss such as leaching because of its low

solubility and minimal movement in the soil. For instance, when P takes the form inorganic phosphate, (PO4) 3-, it forms a tight bond and remains bound to the site where it is deposited with very little vertical movement. It often attaches itself to Iron (Fe) and Aluminum (Al) both of which are elements that do not easily leach out of the soil. In addition, P "is not released in gaseous form, and therefore lacks the normal cycle associated with elements like N and C" (Eidt 1984:26). Other reasons why phosphorus is the most widely used chemical for archaeological soil analysis is that it can be estimated analytically and is usually found in substantial quantity.

Methods of Soil P Analysis

There are many different methods of P soil analysis that have developed over the 50 years that it has been in use. The tests vary in the types of P that are extracted and the methodology used to do so. Many factors must be considered before an appropriate test can be chosen for the desired results. For instance, the effects of adding P to a soil will depend on the plants in the soil and the nature of the soil, specifically the pH. The basic premise for soil P analysis is the extraction of P from the soil using an acid or alkali, followed by "reduction and complexing to give a colored solution, the strength of color being proportional to the amount of P" (Eidt 1984:27). Different techniques have been developed that extract and analyze different parts of soil P. "The amounts and types of soil P extracted are a function of the strength of the acid or alkali" (Eidt 1984:28). There have been studies done on many different methods, and it has been determined that several can be valuable. However, this depends on the context of the site and the type of information the researcher is trying to extract. Determining which part or combination of P is to be used is therefore an important consideration when research questions are being formulated.

There are two forms into which soil P can be broken down: organic and inorganic. However, the various types of soil P that can be measured include organic P, inorganic P, total P, and available P. Available P was the first type of soil P to be measured for archaeological analysis. It is the amount of P available to plants and has been called the "index of phosphate fertility" (Proudfoot 1976:95). Available P is roughly synonymous with labile P. Labile P is a part of soil P that consists of both organic and inorganic parts

that more easily move into soil solution. However, there were many problems with testing available P. For instance, it is only found in extremely small amounts and is highly volatile, varying with seasons and rainy periods (Eidt 1984). In addition, the process for determining available P involves recreating the complicated chemical process that plants use to extract the phosphorus. For these reasons, archaeologists were eager to find another method for determining amounts of phosphorus in the soil. A new method that was introduced was the Ring Chromatography test. It measures total P and a version of it is used in this study.

Eventually studies on soil P began to concentrate on organic P. There are two main techniques for the determination of organic P in soil. These are extraction and ignition (Schlezinger and Howes 2000). Both methods involve transforming organic P into measurable inorganic P. The extraction method recovers organic P from the soil by extracting it with acids and bases. In this process "organic P is converted into orthophosphate and the content of the organic P is determined from the increase in inorganic P as compared to a dilute acid extract of the original" (Stevenson 1986:258). The ignition method is slightly different in that "organic P converts to inorganic P by ignition of the soil at elevated temperatures and is calculated as the difference between inorganic P in acid extracts of ignited and non-ignited soil" (Stevenson 1986:258). Another technique that is used to convert organic P into inorganic P is chemical digestion. However, because this process involves using strong and dangerous reagents it is not commonly used.

Another recent development in soil P analysis is that of P fractionation. It was first introduced by Chang and Jackson in 1957 but did not quickly catch on with the scientific community (Lillios 1992). However, more recently the complicated procedure is once again becoming popular with the introduction of other more sophisticated techniques. The process works on the inorganic form of soil P. It "chemically quantifies the different soil-P species" (Bethell and Mate 1989:13). With this process each distinct inorganic chemical phosphate form can be identified. This allows for a much more detailed analysis of the increases of P due to human activities. However, it is very complicated, time-consuming, and costly and therefore has had limited use in the past. However, the most recent studies being done on soil P regularly use this technique.

As can be seen there are many different ways that the level of P in soil can be measured. The only conclusion that can be made that applies to all soil phosphorus studies on archaeological sites is that the type of P measured is variable and based on many research questions and factors.

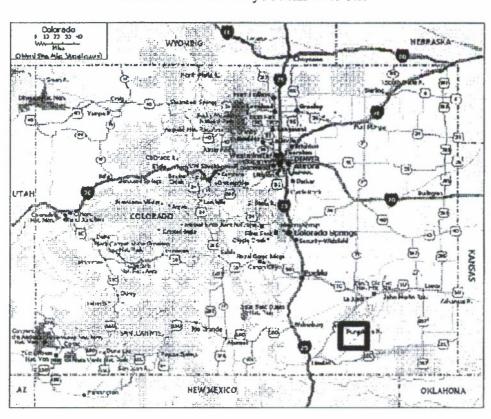


Figure 1

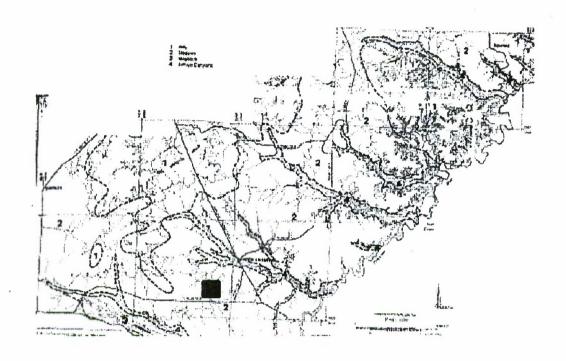
Location of Pinon Canyon Maneuver Site

The Application of Soil P Testing to PCMS

For the past seven years a large-scale archaeological survey and investigation has been and continues to be conducted on the Pinon Canyon Maneuver Site in southeastern Colorado (See Figure 1). Abandoned settlements of both historic and prehistoric date have been recorded and ultimately examined to determine their eligibility for the National Register of Historic Places. Any archaeological site that is recorded on the National Register gets protection from the government against future damage. This is especially

important on the PCMS land because of the military activity. The PCMS land has been used as a

Figure 2
Site 5LA2316 on PCMS owned land



military maneuver-training site since the military bought the land in 1985. As result many archaeological sites have been seriously damaged. In order for these sites to be protected in the future they must be claimed eligible for the National Register. To do this they must by deemed as having unique historical value. This is determined by an archaeological investigation. These investigations have been going on for many years and will continue in the future as mandated by the government.

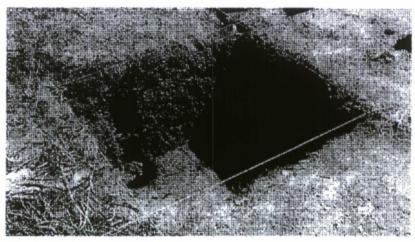
In the 2001 summer field season University of Colorado at Colorado Springs' personnel excavated site 5LA2316 on the PCMS land (See Figure 2). This site is a historic ranching complex that dates between 1910-1930. It is significant because it may represent the beginning of land use in this area. The comprehensive excavation included

opening up forty-two, 1m by 1m units spread over the entire site (See Picture 1 and Map 1).

The immediate goal of the excavation was to determine the amount of damage caused by military activity such as tanks driving over parts of the site. From this it is determined if the site has any integrity making it cligible for government protection. One way to assess the damage to any unique value a site may have is by determining how the people who lived there used the site. The way to do this is to determine the functions of small areas that show activity, in archaeological terms, a feature. First it is important to clarify exactly what areas on a site can be called features. This is often in dispute

Picture 1

Example of a 1m by 1m excavation unit



because of little surface evidence of habitation such as artifacts or remnants of any structures. Often, searching for features can be a time consuming process of the excavation. It is usually the first thing that is done on a new archaeological site. Even after the site has been looked over many times the locations of activity areas may still be quite uncertain. In the case of the site on this study, ten features were initially identified. However, many of these were merely depressions in the surface that looked suspicious. They could have been rubbish pits, or merely tank maneuver holes. If an area's suspicious nature is strong enough, then it may be labeled a feature. However, this is usually only done if some previous use can be reasonably presumed. Once the excavation begins these areas will be excavated to try and determine their function, if any. Unfortunately, the initial guesswork of where activity areas are can be costly to the

project. If many areas are labeled as features and then turn out to be nothing, a lot of time and energy is wasted. On the other hand, a potential activity area cannot be overlooked. Determining features in this way takes a trained archaeologist who has done many years of fieldwork in the area.

A possible remedy for these types of situations is the implementation of soil P spot testing on the site. This type of testing would provide a simple, cheap, and fast method of locating and potentially determining the function of a human activity area. With this knowledge some of the problems that were outlined above could have possibly been minimized. This study aims to show examples of this. For instance, in the features that were identified merely by a depression, it was proposed that analysis of the soil P density could have helped to determine if their was any human activity in that area. As it turns out, there was very little phosphorus evident in the samples taken from this area. As a result, it could be assumed that there was no human activity there. Consequently, it was reasoned that these depressions were most likely tank burrows. I do not propose that the use of a soil P spot test on a historical site will negate the need for archaeological excavation, but rather that it would help to locate activity areas more precisely instead of the usual "blind" surveying technique that is now being practiced.

My goal for this project was to do a soil P spot test on site 5LA2316 that has already undergone extensive test excavation. From the soil P density patterns I proposed to be able to determine the accuracy of my testing with results achieved from the excavations. I predicted that the amount of phosphorus in the soil would correlate with the amount of activity that was found at that location through excavation. Areas with more intense human activity would receive a higher value on a scale (See Table 1). Likewise, areas of little human activity would receive a lower value. By plotting these values over a site map of features, areas of correlation or disagreement with expectations can be determined. Ultimately, I would like to test other historical sites in the area that have also been excavated to further test my hypothesis. If my results of soil P spot testing continue to correlate with the excavation results, then I would like to use the spot testing method to determine location of features on historical sites before excavation is done. I predict that I will be able to come up with a model that could be used on all historical sites on the PCMS land. This would allow archaeologists to more precisely

focus their excavations, and thus reduce the traditionally extensive cost and time requirements.

Test Methodology

The test used was the Spot Field Test Method perfected by R. C. Eidt. It measures total P and is a simple, fast, cheap, and reliable method. It does not produce the detailed results some other soil P tests have, but for the purposes of this study its extractable data will be more than adequate. As mentioned earlier, some soil P tests attempt to determine the function of the activity areas. I do not propose these types of results. Rather, I propose to determine a precise location and possible relative intensity of use of the human activity areas on the site.

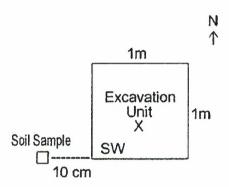
The methodology I used to collect the soil samples on site 5LA2316 is a method that is outlined by William Woods in a 1975 paper titled, "The Analysis of Abandoned Settlements by a New Phosphate Field Test Method." The first step in my collection was determining where the samples were going to be taken. The majority of the site was inside a fence that was put up by the military. The fence is approximately 140 m by 140 m. Inside the fence a grid was laid out for reference. It was 100m by 80 m square with excavation units laid out every 20 m (See Map 1.) The coordinates of the entire site, including the grid had been plotted by a GPS (Global Positioning System). As a result the sites exact location could be easily mapped. Soil samples were taken from a precise proximity to units. This included units on the grid that were excavated and some that were not. Other samples were taken from excavated units, mostly in features that were not part of the grid. This included features that were outside the fence boundary. However their exact locations were still captured with GPS. In addition, background control samples were taken from each cardinal direction. The north heading was taken 30m from the North Datum nail that is on the edge of the site fence. Each of the other headings was taken off the datum of the unit furthest in that direction and then 30 m from the fence (See Map 2).

All samples taken from the grid and the units from the features outside of the defined area were taken ten centimeters west of the SW corner of each unit (See Figure 1). The samples were taken ten centimeters down, and approximately 40.0 grams of soil was extracted with a trowel, and put into a sterile 5 in. X 7 in. zip lock bag. A total of 38

soil samples were taken from site 5LA2316. The samples arrived in the laboratory in the plastic bags they were collected in, and were allowed to air dry for several weeks. Before testing began all equipment was washed in a HCL bath, rinsed, and dried. This was done to prevent contamination of the samples. The next step was to take various sizes and types of soil particles from a bag and to grind them with a mortar and pestle. After the soil particles were ground they were passed through a 2.0 mm sieve, placed in a new bag, labeled and stored with the unground portion of the soil sample.

Figure 3

Location of soil sample in correlation to excavation unit



The next step was to prepare the two reagents needed for the test. First a 5.0-gram amount of ammonium molybdate was weighed and set aside. Then 0.5 gram of ascorbic acid was weighed and set aside. 100.0 ml of distilled water was added to each of two 150.0 ml bottles that are distinctly labeled to avoid mix-ups. The premeasured ammonium molybdate was then carefully added to one bottle, labeled "A", and the premeasured amount of ascorbic acid was similarly added to the other bottle, labeled "B". Both bottles were then vigorously shaken for two minutes. At this point the ascorbic acid reagent was ready to use. However, there was one more step involving the preparation of the ammonium molybdate reagent. Thirty ml of 6 N HCL was added to the ammonium molybdate, bottle "A", after its contents were completely dissolved. This mixture was then shaken. (If necessary both reagents could have been stored for up to 24 hours in a cool, dark environment). Testing began with the two reagents being poured into separate

dropper bottles, making sure they were clearly labeled. Next, one piece of filter paper was laid out on a clean dry surface. Extreme care was taken so that only the edges of the paper were touched and that the surface was free of any potential phosphorus contamination. Using a knife, approximately 100.0 mg of ground soil was taken from a bag and placed on the paper. (This is just enough soil that will fit on the end of the knife.) An important part of the experiment was the timing of the adding of the reagents and therefore a large clock with a second hand was used. The testing began with two drops of reagent "A" being added to the soil. Exactly 30 seconds later two drops of the "B" solution were applied to the sample so that the soil was completely saturated. The soil and the clock were then watched and at the first indication of a blue coloration on the filter paper the exact time was written down. If any phosphorus is present a blue coloration will appear within two minutes. The more intense the blue color, and the sooner it appears, the greater the quantity of phosphorus in the soil. At this point a number value between one and six must be given to the sample based on four characteristics (See Table 1). The four qualities include: "time elapsed before first blue color appears, percentage of soil circumference surrounded by blue color, length of rays emanating outward from the soil, and intensity of coloration" (Woods 1975:13). The possible number values were 1-6, where one indicates no phosphorus, two indicates weak amounts, three indicates average amounts, four indicates a good amount, and the values five and six indicate strong amounts of phosphorus. The number value given for the sample was then written down next to the soil sample number on a piece of paper. All the samples were tested in a random order to ensure a blind study. After the testing was completed the sample's values were plotted on a map of the site and the analysis begun.

Spot Test Chemistry

Two reagents were used in the phosphorus spot test used in this study. Reagent "A" consisted of ammonium molybdate, found in the form (HMo6O21) 5-, and 6 N HCL. When it is applied to the soil, "the HCL releases the bound phosphate compounds and converts them to phosphoric acid, H3 PO4 or PO4 3-. 6 N HCL has been found strong enough to release all but the most occluded and most alkaline soil phosphate compounds. Next, the phosphoric acid reacts with the molybdate compound and forms phosphor

molybdate, (P (Mo3 O10) 4) 3- (Woods 1975). After thirty seconds reagent "B" is applied. "B" consists of ascorbic acid that reduces the phosphor molybdate to molybdenum blue compounds (Woods 1975). The intensity of phosphate in the soil sample is shown by the quantity of molybdenum blue formed and its time of appearance.

Table 1

Rating	1	2	3	4	5	6
Time of Appearance						
of Rays (seconds)	120+	90-120	50-100	20-60	5-30	0-10
Approximate Ring						
Closure around	0	0-50	50	75	100	100
sample						
(Pcrcent)						
Length of Rays			1			
(mm)	0	0-2	2-3	3-5	5-8+	5-8+
9						
Intensity of Blue	None	Very	Pale	Medium	Dark	Very
Coloration		pale		Dark		Dark
9						

Analysis

The analysis began with the mapping of the tested values (See Map 3). For the initial analysis the values of the soil samples were written on a simple map of the site showing the site's features. From this it could easily be determined whether or not there was any correlation, preliminarily indicating that the testing was successful, or if there was no correlation and thus the testing could be deemed unsuccessful. If this were the case, and steps would then have to be taken to find the cause of the errors. After this initial check it was determined that there were many areas of habitation on the site that

correlated with increased values of phosphorus density, and therefore, further and more detailed analysis was warranted.

The first step was to look at the background levels of the site. Four background control samples were taken, one at each cardinal direction, a nominal distance from the heart of the site, to insure that the site did not have unusually high natural amounts of phosphorus in the soil. Three of the four samples indicated low background levels of 1 and 2. However, the North sample was given a value of 3 which presented some questions. The table used said a 3 value was average. However, it must be noted that what is average on one site may not be average on another. This of course is the purpose of the background testing. Ultimately, it was determined that because a 3 value was given to a background sample that a 3 value would not be seen as an increase of phosphorus on the site for the analysis.

Overall, soil sample values from the study ranged from 1-4. Because the highest background sample value was 3, a 4 value could be determined as an indicator of increased phosphorus. As a result, soil phosphorus testing using the Spot Test Method is applicable to this site.

The majority of evidence suggests that the soil phosphorus test values on the site correlated well with the excavation results. To best illustrate this, the results will be presented and analyzed by feature (See Table 2 and Map 4). Following that, the samples that were taken that do not correlate directly with features will be discussed. The first features to be discussed will be those with undisputed human activity that had correlating high phosphorus test values of 4. These are features B, C, D, and E (See Map 1). These features were all areas of undisputed human activity. However, in some cases how much activity or the precise was uncertain. After the excavation it became clear that each of these features were the location of a large amount of human activity. Unfortunately, the exact use was still undetermined. The soil sample tests results for these areas were all 4, evidence of a large amount of human activity. Of a total of eight soil samples from the features, 100 percent had a value of 4. This indication of high amounts of human activity from the soil samples correlate precisely with the excavation results.

Table 2

Feature	Туре	Amount of Human Activity According to Excavation Results	Amount of Human Use According to Soil P Test Results
A	Corral	High	Low
В	Residential Structure	High	High
С	Residential Structure	High	High
D	Residential Structure	High	High
E	Cistern	High	High
F	Undetermined	High	Medium
G	Undetermined	Low	Low
Н	Undetermined Depression	Medium	Low

In addition to the soil P results correlating to features that clearly showed large amounts of human activity, there was one feature, and corresponding soil P samples, that turned up evidence of little human activity. This was feature G. It is characterized by a roughly circular stone alignment. No surface artifacts were found, but a few artifacts were uncovered a little below the surface. It was originally thought that some type of structure was here. However, the final conclusion was that it was unlikely for there to have been a structure here, and as a result it is believed that the rocks were most likely merely thrown here. This correlates with the low phosphorus value of 2 it received.

Even though a large portion of the soil sample values correlated well with the excavation results there were some values that were unexpected. These were found in features A, F, and H. Of these three features, A is arguably the most unexpected. The reason for this is that is by far the most visible feature on the site. The features function is undisputedly a corral. It is characterized by three rock walls, three meters in height, and is five meters in length. In addition the corral was believed to have a roof, and the uncovering of a post-hole helped to prove this. It was also believed to have a gate on the

fourth side, as evidence of a gate handle suggested. Two units were excavated in this feature. Although there were a few surface artifacts found, the units were expected to contain a minimum of artifacts. This was due to the fact that it was merely a place where animals were kept. However, the excavation resulted in quite a few domestic artifacts being found. The conclusion made was that these items were most likely dumped there at a later date. The phosphorus values the two samples from this feature received were one and two. These low values were not expected from this feature. One reason higher values were expected was because it was an animal corral. A large amount of animal feces that would be expected in a corral would be expected to increase the amount of phosphorus in the soil. The other reason why a higher value phosphorus value would be expected was because of the large amount of artifacts found during excavation. There are a few possible explanations for why such low amounts of phosphorus were found in this feature. Firstly, it is possible that the domestic artifacts were dumped at a later date. Depending on how recently they were dumped they may have not have enough time to change the level of phosphorus in the soil. Another possible explanation is that the small amount of artifacts was not enough to produce a measurable difference in the soil. The other concern is why the animal feces did not produce an increase in the soil P test values. Unfortunately, at this time no reasonable explanation for this can be found. The most appropriate response for this feature would be to collect and test new samples from this area.

Another feature that produced unexpected sampling values was feature H. This feature is characterized by a large depression approximately three m long and one m wide. There were no structural elements present, and there were no artifacts found on the surface. At the beginning of the excavation there were many ideas of what the function of this feature was. Possible theories were an animal trough, a dug house, or some other type of shelter. The excavation revealed very few domestic materials and no evidence of a structure. However, interestingly, an abundance of building materials was found. These included nails and tarpaper. In addition, a large amount of window glass was found in a very condensed area. At first it was thought that this had possibly fallen from a structure. However, after further excavation it was reasoned that is was most likely just dumped there at a later datc. Evidence of occupation was never confirmed, and it is

likely that if there was any occupation, it was very brief. It is reasonable to suggest that these artifacts were dumped here. The broken glass window suggests this, as does the variation of the other artifacts found. Two soil phosphorus samples were taken in this feature. They received very low values of one and two, implying no human activity.

Picture 2
Feature A; A three sided corral



Although these values correlated to the fact that no human activity was ultimately confirmed in this area, because of the large amount of artifacts found a higher soil P value would be expected. It is possible that these artifacts did not have enough affect on the soil to produce an increase in phosphorus density. This could result from lack of sufficient time or lack of enough artifacts. Once again, the first step to further assess this feature would be to recollect and retest soil samples.

The final feature that was difficult to interpret was feature F. At the initiation of the excavation this feature was thought to be a small three-sided corral, dug house, or some other type of shelter. This was largely due to evidence of a slight depression. However, the excavation revealed no domestic artifacts and only a minimal amount of building materials such as nails, tarpaper, and glass. Even though these were found only in small amounts, it does seem that there was some type of activity going on here. A

mere dumping spot does not seem likely. It should also be noted that artifacts were found about 30.0 cm down from the surface. This is lower then would normally be expected and an explanation for this depth has not yet been found. However, this could result in a lower rating than otherwise because the soil sample was taken from only 10.0 cm down. As a result, the soil sample may not have reached the full extent of the occupation. Thus a lower value then deserved would be received. Such an issue could be enough to make an area that should receive a 4 value get a lower 3 value. The two samples taken from this feature received values of three. This value is hard to interpret, as it is intermediate. However, it is the most appropriate value for this feature. Unfortunately, it does not really confirm one way or another if there has been any human activity, even though this is precisely what the excavation revealed. As a result a different value would not be expected.

In addition to samples being taken from inside features, some samples were taken from areas outside features. Most of these were taken as part of the grid that was laid out for the excavation. The grid was laid out to get a representative sample from the entire site. It ensured that units were excavated in areas other then just features so that there would be comparative data. Almost all of the units that were excavated were done so merely because of their appearance on the grid. Many soil samples were also taken from the grid. Most of them received low values of 1, 2, or 3 as expected. However, there were two samples that gave unexpected results of 4. The first of these was unit 17. The entire unit was sterile, including the surface. However, there was some speculation about a possible thermal feature in the southwest corner of the unit. A thermal feature is usually recognized as being a hearth or some type of fire pit. It produces very distinct characteristics, and evidence of such features is often found on archaeological sites. However, in this case, it could never be confirmed that this distinct area, most likely due to a fire, was due to human activity. As a result, it was concluded to be a natural occurrence. However, a natural fire may have been enough of an influence on the soil to result in a higher phosphorus rating.

The other unit that received an unexpectedly high value was unit 21, in the very southeast corner of the site. This sample also received a value of 4. The unit was characterized during the excavation as being completely sterile throughout. However,

there are some clues to as why this sample would have received such a high value. First of all, this unit was ten meters directly south of feature A, the standing three-sided corral. As noted earlier, feature A revealed a lot of evidence of domestic materials. Unit 21 sits in a slight depression. In addition, the entire area beginning with the corral slopes south. As a result, any possible wash or erosion from the corral area would lead directly to unit 21. Another possible reasoning for such a high value is the extreme amount of rodent disturbance found throughout the unit. However, it is not presently known if the extreme rodent disturbance would cause higher phosphorus readings. As a result, a conclusion regarding this sample cannot be made. This sample reading is the least understood of the entire site. The last possibility for the unusually high value is that the sample got contaminated. In this case, other samples would have to be collected from the area and be tested.

There are many reasons why unusual results, such as the ones described above, could occur. They can be divided into three groups: physical, human, and methodological factors (Woods 1975). Throughout the study every attempt has been made to minimize these factors. However, they are all but impossible to eliminate. The first of these to consider are the physical factors that influence the natural levels of phosphorus in the soil. Background control samples were taken to test the natural levels. However, it is possible for there to be minor fluctuations throughout the site. The levels can be influenced by the type of bedrock in the area or, more likely, the type of soil. For instance, different soil horizons may have different phosphorus concentrations. This is often due to their various depth and thickness (Woods 1975). In addition, the soil's chemical composition and pH must also be considered (Woods 1975). One final consideration that must be made when assessing the result the physical processes could have on soil P testing is the climatic history of the site area. For instance, erosion can have a huge affect on an area, and thus on levels of phosphorus in the soil.

It is also important to look at the human factors that could influence the level of phosphorus present in the soil. The main influences here would be the type of buildings on the site. For instance, the material that was used, the size of the structure, and the length of use of the structure, would all influence the amount of phosphorus residue that would result. In addition, how the land was used is important to consider. For instance,

if the land was used for raising crops it may have different phosphorus residues than land used for animal husbandry.

A final consideration that must be considered is the methodology of the testing itself. One concern is contamination. Extreme care has been taken to ensure contamination of samples does not happen, however, the risk still exists. Another concern is the visual determination of the blue color of the samples. Although there are guidelines to giving values to a sample, there is some viewer discretion. To minimize this all samples were tested the same day and by the same person. However, it is still possible for there to be inconsistencies. In all cases, the first step that should be taken to remedy these problems is to retest the samples. In addition, in some cases new samples may need to be collected.

Benefits to Archaeological Site Excavations

There are many benefits that a phosphorus soil sample test can offer a site. There arc two main ways that the benefits can be interpreted. The first is the benefit to the study of the site that would occur if the soil testing had been used when the nature of the site was first being determined. The traditional method for evaluating a site before excavation is by "walking" the site. When this is done potential areas of human habitation are identified and designated a "feature" and given a feature number. For this site ten features were initially identified. The purpose of this identification is to help determine where on the site the excavation should be focused. The purpose of the excavation is to then determine if these proposed features are indeed areas of habitation, and from this analysis of the site can follow. With the use of phosphorus soil testing the initial labeling of features could be scientifically determined rather than using the more fallible "walking" method used today. The soil P testing results for site 5LA2316 clearly show that such testing before excavation would have been beneficial. The value of the soil testing is most evident in a specific type of feature found on the site. This is a feature that at the time of labeling, and thus at the time of walking the site, could not be confirmed to be a feature by surface evidence. However, there was something in the area that seemed unusual. There was enough suspicion that warranted excavation in the area. On site 5LA2316 there were two of these types of features, G and H. In such cases,

rather than excavation being the first step, soil sampling could have been the first step. Both of these features had soil phosphorus sample results of 1 or 2. As a result, it is reasonable to assert that it was fairly unlikely for these areas to have been major areas of human activity. Had this testing been done before excavation, perhaps the time and energy spent in excavating the many units in these features could have been spent elsewhere. However, this method is not foolproof. For instance, if a feature map were determined using only the soil values, then arguably, the most obvious of all the features of the site would have been left out. This would be feature 1, discussed earlier. An important thing that the values of this feature show are that it is important to not rely on only one survey procedure. All are fallible to some degree. Phosphorus testing is only to help determine areas of habitation and should not be looked at as the only indicator. Therefore, it is suggested that the "walking" method should also be used, and together a feature map could then be made.

The second benefit that phosphorus testing has at a site takes place as the excavation proceeds. This can be seen very clearly on site 5LA2316 when an area to the northwest of the site came into question. There was some speculation throughout the excavation as to whether or not a windmill might have been in place on the site. An appropriate place for a windmill was noticed, and as a result an excavation unit was put in. This was unit 42. Nothing was found in the unit, and eventually it was closed. A soil test of this area returned a value of 1, correlating precisely with what was found through the excavation. If the soil sample were taken before the excavation of this unit, potentially its evidence would have been enough to determine that the area was void of human activity. As a result, the sparse time and resources could have been used elsewhere.

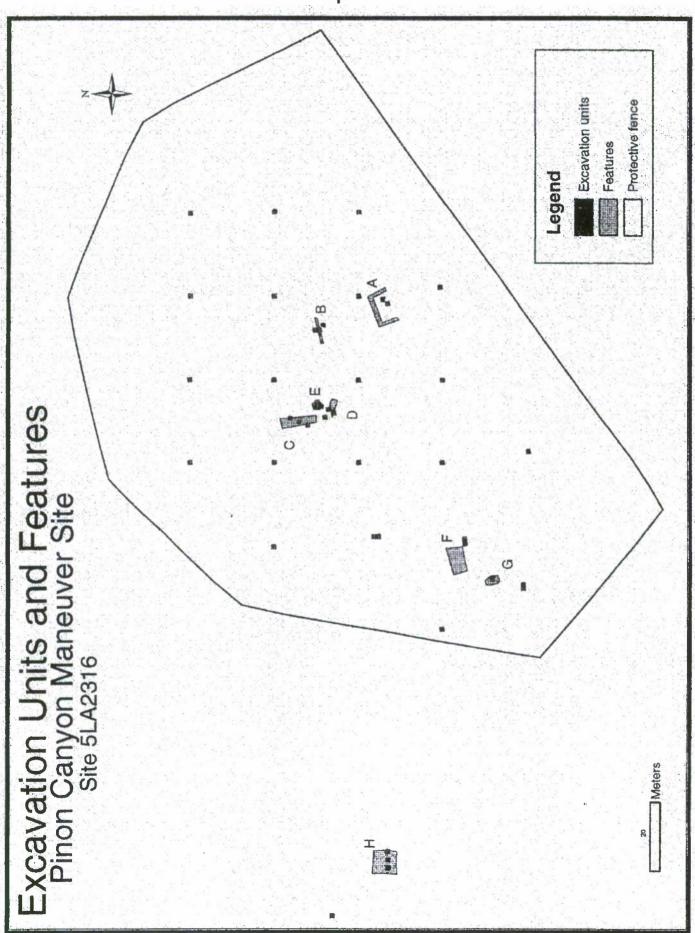
Conclusion

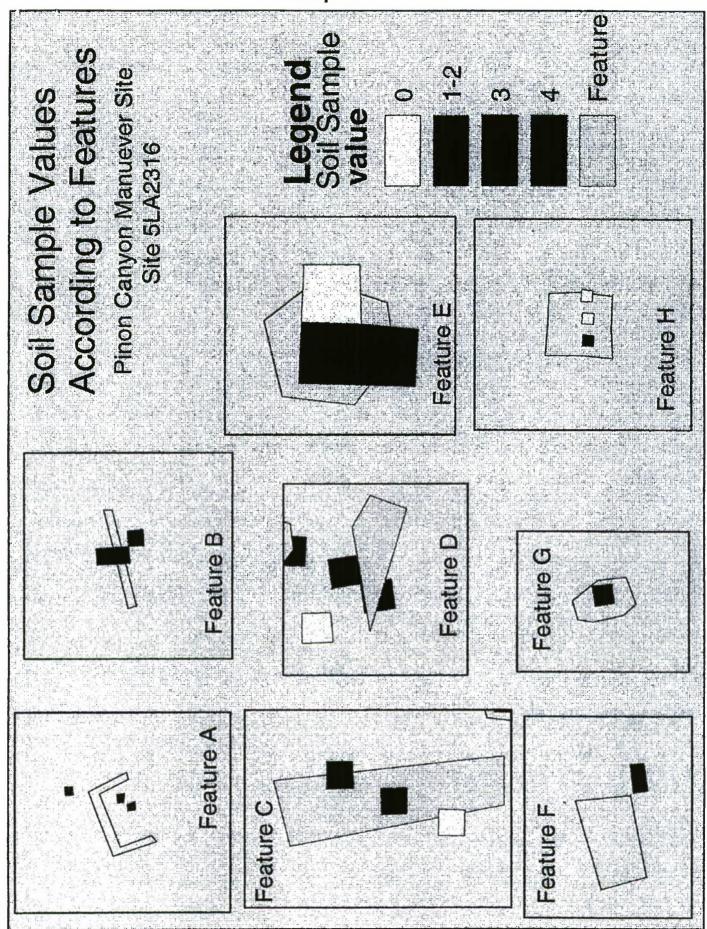
This study successfully attempted to show the correlation between areas of human activity on historical archaeological sites and their increased density of phosphorus in soil. This study is specific to historic archaeological sites on the PCMS land in southeastern Colorado. From this study it has been confirmed that human activity leaves behind a phosphorus residue that can be measured by a simple test. The amount of phosphorus present can then be used to determine precise locations of human activity on

the archaeological site. This is useful when the site is first being assessed and areas to be excavated are being determined. From this study it is postulated that other historical archaeological sites in this area could use this technique. It could be used as a preliminary method to find areas of human activity that may eventually be excavated. As a result of this study a new method for assessing archaeological sites in the PCMS area has been introduced. It is believed that the greatest contribution that this test on the PCMS land shows is the values, and equally important, the limitations of using the spot test method on historic archaeological sites.

Appendix

Map 1	Excavation Units and Features
Map 2	Locations of Soil Samples
Map 3	Soil Sample Test Values
Map 4	Soil Sample Values According to Feature





Index of Figures, Tables, and Pictures

Figures

- 1. Area of PCMS within Colorado
- 2. Site location on PCMS land
- 3. Location of soil sample in relation to excavation unit

Tables

- 1. Rating scale for various attributes of testing sample
- 2. Correlation between intensity of human activity and soil P test values according to feature

Pictures

- 1. Excavation Unit
- 2. Feature A, a three sided corral

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Appendix 3 – Artifact Analysis Databases

(Artifact analysis overseen and database designed by Pamela Cowen, analysis by Pamela Cowen and UCCS undergraduates Kimberly Henderson and Michael Prouty)

Ammo															
Site# Prev#	Prev#	Cat #	Feature	Unit	Lot	Elevation	H20	Material	Material Description Portion Quantity Weight Length Diameter Calibre	Portion	Quantity	Weight	Length	Diameter	Calibre
SLA2316 D-144	D-144		diagnostic		surface		FALSE	brass	.38 cartridge casing	whole	_	5.8	1 5/16	1/2	.38
SLA2316 09-03	09-03	5LA2316.100.096	2	6	_	1000.251	FALSE	brass	cartridge	whole	_	5.4	1 1/4	1/2	44
LA2316	33-26	5LA2316 33-26 5LA2316.100.275	en	33	_		FALSE	brass	.44 cartridge casing		_	5.5			44.

Center/Rim	Center/Rim Maker's Mark Manufacturer/T	Manufacturer/Type	fype Early Date Late Date	Late Date	Comments	Category	Class
center	WRA Co, .38 WCF	Winchester Repeating Arms Company	1873		source: Logan, Herschel C. 1948 Cartridges a pictorial digest of small arms ammunition	firearms	ammunition
center	WRA, 44 WCF	Winchester Repeating WRA, 44 WCF Arms Company	1873		source for TPQ Logan, Herschel C. 1948 Cartridges a pictorial digest of small arms ammunition	firearms	ammunition
center	44-40 Peters	Peters Cartridge Company	1887		44-40 peters, centerfire, peters cartridge company, 1887-1934 (from Logan, Herschel "Cartridges-a pictoral digest of small arms ammunition", 1948)	firearms	ammunition

Bone/Shell

Site #	Prev #	Cat #	Feature Unit	Unit	Lot	Elevation	H20	Material	Description	Quantity	Weight	Species
5LA2316	11-12	5LA2316.100.127	-	=	2	999.803	FALSE	bone	bone fragment	_	0.1	rodent?
5LA2316	11-42	5LA2316.100.142	_	=	2	999.803	TRUE	bone	fragment	_	0.2	
5LA2316	11-47	5LA2316.100.152	_	=	3	999.695	TRUE	bone	fragment	_	too light for scale	
5LA2316	11-26	5LA2316.100.154	_	=	4	999.695	FALSE	bone	fragment	_	0.4	
5LA2316	11-49	5LA2316.100.161	_	=	5	999.562	TRUE	bone	fragment	_	too light for scale	
SLA2316	11-56	5LA2316.100.173	_	=	7	999.358	TRUE	bone	fragments	8	too light for scale	
SLA2316	11-58	SLA2316.100.175	-	=	7	999.358	TRUE	bone	fragments	2	too light for scale	
5LA2316	08-04	SLA2316.100.085	7	00	2	1000.101	FALSE	bone	rib?	_	1.5	mammal
5LA2316	09-11	5LA2316.100.104	7	6	2	1000.131	FALSE	bone	flat bone fragment	_	0.2	mammal
5LA2316	34-16	5LA2316.100.303	3	34	_		FALSE	bone	rodent bone	4	1.6	
5LA2316	34-64	SLA2316.100.327	٣	34	_	,	FALSE	bone	bone fragment	-	too light for scale	
5LA2316	34-37	5LA2316,100,336	3	34	7		FALSE	bone	faunal bone	10	9.09	
5LA2316	34-41	5LA2316.100.351	3	34	3		FALSE	bone	large mammal bone	7	100.7	
5LA2316	34-42	SLA2316.100.352	3	34	33		FALSE	bone	rodent or bird bone	∞	1.3	
SLA2316	34A-12	5LA2316.100.390	ю	34A	7		FALSE	bone	small and large faunal bone, vertebrae, mandible,	34	360.4	
5LA2316	34A-46	SLA2316.100.405	3	34A	2		FALSE	bone	bone fragment	-	3.5	
5LA2316	34A-47	5LA2316.100.406	ю	34A	7		FALSE	bone	rodent bone fragment, vertebrae, mandible	9	0.5	
SLA2316	34A-52	SLA2316.100.411	٣.	34A	2		FALSE	bone	rodent bone, vertebrae and long	4	0.2	
5LA2316	34A-28	5LA2316,100.419	8	34A	۳		FALSE	bone	rodent bone fragment	91	2.5	

2.9	0.2	0.2	19.2	0.3	0.2	0.2	=	0.2	4.3	0.1	too light for scale	0.3	0.5	33.9	63.5	46.3	35.3	107	9.0	3.5	8.98	3 76 5
2	2	4	4	-	_	_	-	_	_	_	_	-	_	-	2	10	12	12	2	4	194	141
mammal bone fragment	rodent bone fragments	rodent bone	mammal bone	shell or bakelite, natural??	rodent bone, vertebrae	dark grey shell-like fragment	rodent bone	dark gray shell-like fragment	mammal bone fragment- rib?	dark gray shell	rodent bone	bone fragment	dark grey shell	mammal bone (scapula)	mammal bone	mammal bone	mammal bone	mammal bone	dark gray fragment, shell?	small mammal bone	rodent bone	rodent hone
bone	bone	ропе	pone		bone		bone		bone		bone	bone		bone	bone	bone	bone	bone		pone	bone	hone
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FAICE
3	3	3	-	-	-	_	-	-	2	1	2	5	5	9	7	∞	6	10	10	=	12	2
34A	34A	34A	35	35	36	39	37	38	38	41	41											
3	m	3	3/4	3/4	4	4	2	2	5	5	5	5	5	2	5	5	5	5	5	5	2	
SLA2316.100.420	5LA2316.100.428	5LA2316.100.431	SLA2316.100.450	SLA2316.100.452	SLA2316.100.515	5LA2316.100.688	5LA2316.100.558	5LA2316.100.615	5LA2316.100.624	5LA2316.100.748	SLA2316.100.752	SLA2316.100.819	SLA2316.100.827	5LA2316.100.837	SLA2316.100.859	5LA2316.100.869	5LA2316.100.883	SLA2316.100.897	5LA2316.100.914	SLA2316.100.918	5LA2316.100.934	CAO 001 2155 4 13
34A-29	34A-59	34A-62	35-17	35-20	36-15	39-59	37-04	38-47	38-20	41-37	41-29	F5-31	F5-139	F5-44	F5-65	F5-70	F5-84	F5-96	F5-152	F5-113	F5-128	200
SLA2316	5LA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316		\$LA2316	SLA2316		5LA2316	5LA2316	SLA2316	5LA2316			SLA2316	SLA2316	SLA2316	-	5LA2316	21004 15

			mammal	
186.78	too light for scale	0.3	19:7	0.1
602	_	_	_	-
rodent bone	fragment	fragment	flat bone fragment (rib?)	bone fragment
pone	shell	shell	bone	bone
FALSE bone	TRUE	TRUE	FALSE	FALSE
	1000.856	958.0001	1002.236	
13	_	_	3	surface
	7	2	7	
5	9	9	00	surface
5LA2316.100.943	5LA2316.100.218	5LA2316.100.219	5LA2316.100.058	5LA2316.100.989
F5-157	02-07	02-08	07-04	SCLN- 02
5LA2316 F5-157	5LA2316	5LA2316	5LA2316	SCLN- 5LA2316 02

Cat#	Comments	Category	Class
5LA2316.100.127		Fauna	Fauna
5LA2316.100.142		Fauna	Fauna
SLA2316.100.152		Fauna	Fauna
5LA2316.100.154		Fauna	Fauna
5LA2316.100.161		Fauna	Fauna
5LA2316.100.173	-	Fauna	Fauna
SLA2316.100.175		Fauna	Fauna
5LA2316.100.085		Fauna	Fauna
5LA2316.100.104		Fauna	Fauna
5LA2316.100.303	partial mandible, vertebrae, flat bone	Fauna	Fauna
5LA2316.100.327		Fauna	Fauna
SLA2316.100.336	sheep?, 1 rib, 1 vertebrae, partial scapula, 1 long bone, other fragments	Fauna	Fauna
5LA2316.100.351	2 rib, 3 vertebrae, 1 flat bone, 1 partial long bone	Fauna	Fauna
5LA2316.100.352	5 vertebrae, 2 rib, other fragment	Fauna	Fauna
5LA2316.100.390		Fauna	Fauna
5LA2316.100.405		Fauna	Fauna
SLA2316.100.406		Fauna	Fauna
5LA2316.100.411		Fauna	Fauna
SLA2316.100.419		Fauna	Fauna
5LA2316.100.420		Fauna	Fauna

5LA2316.100.428		Fauna	Fauna
5LA2316.100.431		Fauna	Fauna
5LA2316.100.450	vertebrae	Fauna	Fauna
SLA2316.100.452	edges ribbed like a dime, very similar to previous pieces in other units	indeterminate	indeterminate
5LA2316.100.515		Fauna	Fauna
5LA2316.100.688		indeterminate	indeterminate
5LA2316.100.558		Fauna	Fauna
5LA2316.100.615		indeterminate	indeterminate
5LA2316.100.624		Fauna	Fauna
5LA2316.100.748		Fauna	Shell
SLA2316.100.752		Fauna	Fauna
5LA2316.100.819		Fauna	Fauna
5LA2316.100.827		Fauna	Shell
5LA2316.100.837		Fauna	Fauna
5LA2316.100.859	1 mandible piece	Fauna	Fauna
5LA2316.100.869		Fauna	Fauna
5LA2316.100.883	1 complete rib bone	Fauna	Fauna
5LA2316.100.897	mostly long bone, vertebrae	Fauna	Fauna
5LA2316.100.914		indeterminate	indeterminate
5LA2316.100.918		Fauna	Fauna
5LA2316.100.934	4 skulls, vertebrae, ribs, long and short bones, etc some are burned and fragmented	Fauna	Fauna
5LA2316.100.942	2 skulls, vertebrae, ribs, long and short bones, etcsome are burned and fragmented	Fauna	Fauna
ST A2316 100 943	//o corpora	Famus	Fairna

Fauna Shell	Fauna	Fauna Fauna	Fauna
5LA2316.100.218	5LA2316.100.219	5LA2316.100.058	5LA2316.100.989

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Site #	Prev #	Cat #	Feature	Unit	Lot	H20	Description	Portion	Form	Quantity	Weight
5LA2316	D-071		diagnostic		surface	FALSE	white earthenware			-	44.1
5LA2316	D-108		diagnostic		surface	FALSE	porcelain			2	5.5
5LA2316	D-072		diagnostic		surface	FALSE	white earthenware			-	2.7
5LA2316	D-069		diagnostic		surface	FALSE	white earthenware			-	2.8
5LA2316	D-062		diagnostic		surface	FALSE	white earthenware			_	2.0
5LA2316	D-117		diagnostic		surface	FALSE	porcelain	rim		_	7.3
5LA2316	D-060		diagnostic		surface	FALSE	white earthenware			-	1.2
5LA2316	D-101		diagnostic		surface	FALSE	white earthenware			-	5.1
5LA2316	D-121		diagnostic		surface	FALSE	stoneware			_	34.1
5LA2316	D-099		diagnostic		surface	FALSE	white earthenware			-	6.01
5LA2316	D-097		diagnostic		surface	FALSE	white earthenware			_	16.3
5LA2316	D-089		diagnostic		surface	FALSE	stoneware			_	7.7
5LA2316	D-083		diagnostic		surface	FALSE	white earthenware			-	6.4
5LA2316	D-081		diagnostic		surface	FALSE	white earthenware			_	15.9
5LA2316	D-079		diagnostic		surface	FALSE	white earthenware			-	23.8
5LA2316	D-073		diagnostic		surface	FALSE	stoneware			-	3.0
5LA2316	D-076		diagnostic		surface	FALSE	white earthenware			_	3.5
5LA2316	D-102		diagnostic		surface	FALSE	white earthenware			_	5.4
5LA2316	D-127		diagnostic		surface	FALSE	white earthenware			_	9.5
5LA2316	D-148		diagnostic		surface	FALSE	stoneware			4	76.2

																sale									
62.1	183.4	6.9	27.4	11.2	26.2	27.1	2.4	22.1	5.1	18.8	2.6	21.7	54.0	15.1	6.0	too light for scale	0.4	4.3	6.1	1.3	9.0	1.3	27.9	2.2	90
9	∞	-	_	-	-	_	-	2	-	-	-	2	-	-	-	-	-	3	2	-	_	_	91	_	
								plate or pot																	
					bottom of plate?	lid piece?		nin min							incomplete	rim	body								
stoneware	stoneware	stoneware	stoneware	white earthenware	white earthenware	white earthenware	white earthenware	white earthenware	white earthenware	white graniteware	white earthenware	stoneware	white earthenware	white earthenware	white earthenware	porcelain	white earthenware	white earthenware	white graniteware	white graniteware	white graniteware	white earthenware	white earthenware	fine bone china	
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	0	10	2	0	0	0	0	0	-	-	
															_	9	6	33	33	33	33	33	33	33	
diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	9	∞0	2	3	3	3	3	3	3	3	
															5LA2316.100.001	5LA2316.100.053	5LA2316.100.105	5LA2316.100.230	5LA2316.100.231	5LA2316.100.240	5LA2316.100.248	5LA2316.100.249	5LA2316.100.265	5LA2316.100.266	
D-145	D-143	D-142	D-141	D-133	D-049	D-146	D-058	D-052	D-030	D-124	D-122	D-032	D-078	D-057	01-01	06-22	09-12	33-03	33-04	33-43	33-51	33-52	33-16	33-17	
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	

2.4	0.4	6.4	53.3	55.8	3.7	1.1	7	36.9	1.8	1.4	1.4	0.4	0.3	14.5	1.7	3.5	21.9	0.5	12.4	13.1	0.7	2.0	0.2	6.0	15.7	0.7	14.8
-	-	_	7	23	-	_	-	_	-	_	-	_	-	4	-	-	-	-	-	-	-	_	-	_	-	-	10
	button		plate																								
			rim					rim								base											
white earthenware	porcelain button	stoneware	white earthenware	white earthenware	stoneware	white earthenware	stoneware	white earthenware	stoneware	white earthenware	stoneware	molded pink porcelain fragment	white earthenware	stoneware	stoneware	white earthenware	stoneware	white earthenware	stoneware	earthenware	white earthenware						
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
2	0	0	0	_	_	_	2	2	2	4	4	wall cleanup	lot 1	2	٣	_	_	4	4	4	4	5	0	0	0	_	
33	34	34	34	34	34	34	34	34	34	6	6	34	34A	34A	34A	35	35	35	35	35	35	35	36	36	36	36	36
3	3	٣	m	23	3	3	3	3	3	2	7	8	3	3	~	3/4	3/4	3/4	3/4	3/4	3/4	3/4	4	4	4	4	4
5LA2316.100.281.1	5LA2316.100.293	5LA2316.100.294	5LA2316.100.300	5LA2316.100.313	5LA2316.100.314	5LA2316.100.318	5LA2316.100.331	5LA2316.100.332	5LA2316,100,340	5LA2316.100.363	5LA2316.100.363	5LA2316.100.368	5LA2316.100.379	5LA2316.100.401	5LA2316.100.401.1	5LA2316.100.453	5LA2316.100.454	5LA2316.100.477	5LA2316.100.478	5LA2316.100.479	5LA2316.100.480	5LA2316.100.489	5LA2316.100.501	5LA2316.100.505	5LA2316.100.506	5LA2316.100.520	5LA2316.100.523
33-32	34-06	34-07	34-13	34-26	34-27	34-55	34-32	34-33	34-66	09-20	09-20	34-51	34A-10	34A-23	34A-23	35-21	35-22	35-35	35-32	35-33	35-34	35-44	36-01	36-05	36-06	36-20	36-23
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

4.0	6.0	too light for scale	too light	8.4	29.0	12.4	1.3	0.4	0.7	9.0	17.4	6.0	2.9	5.8	2.8	2.1	20.9	2.4	7.3	9.9	5.0	0.2	too light	too light for scale	0.5	2.1	12.2	12
2	1 0	1	1 5	1 8	= 7	2 1	-	1 0	1 0	1 0	3 1	1 0	1 2	2 5	1 2	1 2	10 2	2		1 6	1 5	1 0	1 t	- -	1 0	1 2	1	2
				marble																								
																				lid							base	
wnite earthenware	earthenware	white earthenware	white earthenware	bisque marble	white earthenware	stoneware	white earthenware	porcelain	white earthenware	white earthenware	porcelain	white earthenware	stoneware	white earthenware	white graniteware	white earthenware	porcelain	stoneware fragments	white earthenware	stoneware	stoneware	white earthenware	white earthenware	porcelain	white earthenware	stoneware	Stoneware	white coethoning
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	CATOR
7	2	2	2	0		1	_	2	2	2	0	_	2	2	3	0	-		-	_	_	_	_	_	2	7	7	,
30	36	36	36	37	37	37	37	37	37	37	38	38	38	38	38	39	39	39	39	39	39	39	39	39	. 39	39	39	00
4	4	4	4	5	٧٠	. 2	ح	5	5	5	5	5	2	5	5	4	4	4	4	4	4	4	4	4	4	4	4	
5LA2316.100.545	5LA2316.100.546	5LA2316.100.552	5LA2316.100.554	5LA2316.100.555	51.A2316.100.564	5LA2316.100.565	5LA2316.100.571	5LA2316.100.581	5LA2316.100.585	5LA2316.100.587	5LA2316.100.598	5LA2316.100.611	5LA2316.100.634	5LA2316.100.635	5LA2316.100.644	5LA2316.100.652	5LA2316.100.667	5LA2316.100.668	5LA2316.100.669	5LA2316.100.670	5LA2316.100.679	5LA2316.100.683	5LA2316.100.690	5LA2316.100.693	5LA2316.100.706	5LA2316.100.707	5LA2316.100.707	000
30-38 and 30-39	36-40	36-56	36-58	37-01	37-10	37-11	37-31	37-20	37-24	37-38	38-01	38-43	38-30	38-31	38-37	39-02	39-18	39-19	39-20	39-21	39-49	39-53	39-61	39-64	39-39	39-40	39-41	
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	51.A2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	21001 12

9.0	2.7	7.0	0.1	0.4	2.5	16.4	0.7	1.1	2.1	8.6	13.7	1.7	8.2	2.7	37	1.3	7.3	5.1	0.7	0.4	10.5	0.5	6.0	2.8	0.4	0.5	9.1	0.5
-	_	4	_	-	-	2	_	_	2	4	_	-	-	3	4	1	-	-	3	-	-	7	7	3	-	-	-	-
						plate											plate	plate										
						base											nim	rim										
white earthenware	stoneware	white earthenware	white graniteware	white earthenware	white earthenware	white graniteware	white earthenware	white graniteware	white earthenware	white earthenware	white earthenware	stoneware	white graniteware	white earthenware	white earthenware	white graniteware	white earthenware	white earthenware	white earthenware									
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
0	0	_	-	-	_	_	2	0	_	4	4	5	S	7	∞	6	6	12	×		1	z	Ь	0	0	~	S	⊢
41	41	41	41	41	41	41	4	42	42																			
5	5	5	5	5	5	5	5	3	3	5	5	5	5	5	2	5	5	5	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface
5LA2316.100.722	5LA2316.100.723	5LA2316.100.739	5LA2316.100.740	5LA2316.100.741	5LA2316.100.742	5LA2316.100.743	51.A2316.100.751	5LA2316.100.760	5LA2316.100.773	5LA2316.100.808	5LA2316.100.809	5LA2316.100.824	5LA2316.100.825	5LA2316.100.858	5LA2316.100.879	5LA2316.100.892	5LA2316.100.893	5LA2316.100.932	5LA2316.100.972	5LA2316.100.979	5LA2316.100.980	5LA2316.100.991	5LA2316.101.000	5LA2316.101.004	5LA2316.101.005	5LA2316.101.010	5LA2316.101.016	5LA2316.101.019
41-02	41-03	41-20	41-21	41-22	41-23	41-24	41-28	42-04	42-17	F5-21	F5-22	F5-36	F5-37	F5-64	F5-80	F5-93	F5-94	F5-126	SCLK-09	SCLL-07	SCLL-08	SCLN-04	SCLP-05	SCLQ-04	SCLQ-05	SCLR-05	SCLS-06	SCLT-03
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

Prev #	Cat #	Thickness	Decoration	Maker's Mark	Early Date	Late Date
D-071					1810	
D-108			blue/black leafs, black transfer, blue/gold paint			
D-072			green leaf with purple outline print		1810	
D-069					1810	
D-062			green leaf print		1810	
D-117			gold paint; thin strip			
D-060			blue print		1810	
D-101			three gold painted strips, one thick, two thin		1810	
D-121			brown-black glaze		1750	1930
D-099			blue speckled		1671	1915
D-097			brown flowers painted			
D-089			black glaze, tan glaze and clear glaze			
D-083			brown transfer print		1810	
D-081			brown print		1810	
D-079					1810	
D-073						
D-076			green leafs with purple outline print		1810	
D-102			dark green decoration just below top piece		1810	
D-127			black paint		1810	
D-148					1750	1930
D-145					1750	1930

1930	1930	1930																									
1750	1750	1750	1810	1810	1810		1890	1810	1810	1810	1810		1810	1810		1810	1810	1810	1845	1845	1845	1810	1810		1845	1810	
					Fragmented words "a paint"	partial word	"Boot."																				
			brown paint		Red paint design around rim	small brown transfer print	strip	thin brown strip around rim			brown and pink paint flower	black glaze exterior										brown speckled					
								.7 at thickest point							0.3	0.2	9.0										
															5LA2316,100,001	5LA2316.100.053	5LA2316.100.105	5LA2316.100.230	5LA2316.100.231	5LA2316,100,240	5LA2316.100.248	5LA2316.100.249	5LA2316.100.265	5LA2316.100.266	5LA2316.100.281	5LA2316.100.281.1	5LA2316.100.293
D-143	D-142	D-141	D-133	D-049	D-146		D-058	D-052	D-030	D-124	D-122	D-032	D-078	D-057	01-01	06-22	09-12	33-03	33-04	33-43	33-51	33-52	33-16	33-17	33-32	33-32	34-06

1930	1910		1930		1915								1930		1930		1880	1930	1930		1930		1930				
1750	1891	1810	1750	1810	1671	1835	1810	1810	1810	1810	1810	1810	1750	1810	1750		1870	1750	1750	1810	1750	1810	1750	1830	1810	1810	1830
brown and olive speckles			brown and olive speckles										light green with brown flecks		light blue, salt glàze	pink, molded	brown transfer print	brlown glaze	green, salt glaze		blue, salt glaze		light green, salt glaze	pink			pink, molded, raised checker pattern
5LA2316.100.294	5LA2316.100.300	5LA2316.100.313	5LA2316.100.314	5LA2316.100.318	5LA2316.100.331	5LA2316.100.332	5LA2316.100.340	5LA2316.100.363 0.6	5LA2316.100.363	5LA2316.100.368	5LA2316.100.379	5LA2316.100.401	5LA2316.100.401.1	5LA2316.100.453	5LA2316.100.454	5LA2316.100.477	5LA2316.100.478	5LA2316.100.479	5LA2316.100.480	5LA2316.100.489	5LA2316.100.501	5LA2316.100.505	5LA2316.100.506	5LA2316.100.520	5LA2316.100.523	SLA2316.100.545	SLA2316.100.546
34-07	34-13	34-26	34-27	34-55	34-32	34-33	34-66	09-20	09-20	34-51	34A-10	34A-23	34A-23	35-21	35-22	. 35-35	35-32	35-33	35-34	35-44	36-01	36-05	36-06	36-20	36-23	36-38 and 36-39	36-40

			1930							1930					1930		1930	1930					1930	1930			1930	
1810		1920	1750	1835		1810	1810		1810	1750	1810	1845	1810		1750	1810	1750	1750	1810	1810		1830	1750	1750	1810	1810	1750	1830
			brown-black glaze							blue flecked				pink	olive speckled			olive speckled				pink	brown exterior, green-gray speckled interior	blue speckled			gray-green speckled	pink
5LA2316.100.552 5LA2316.100.554	5LA2316.100.555	SLA2316.100 564	SLA2316.100.565	5LA2316.100.571	5LA2316.100.581	5LA2316.100.585	5LA2316.100.587	SLA2316.100.598	5LA2316.100.611	5LA2316.100.634	5LA2316.100.635	5LA2316.100.644	SLA2316.100.652	5LA2316.100.667	5LA2316.100.668	5LA2316.100.669	5LA2316.100.670	5LA2316.100.679	5LA2316.100.683	5LA2316.100.690	5LA2316.100.693	5LA2316.100.706	5LA2316.100.707	5LA2316.100.707	5LA2316.100.708	SLA2316.100.722	SLA2316.100.723	5LA2316.100.739
36-56	37-01	37-10	37-11	37-31	37-20	37-24	37-38	38-01	38-43	38-30	38-31	38-37	39-02	39-18	39-19	39-20	39-21	39-49	39-53	39-61	39-64	39-39	39-40	39-41	39-42	41-02	41-03	41-20

										1915								1930					1880		
1830	1830	1810	1810	1810	1810	1810	1810	1845	1810	1671	1810	1835	1810	1845	1810	1810	1810	1750	1830	1810	1810	1845	1870	1810	1810
light blue	light green									blue speckled		pink flower and green leaf transfer print		gold trim					pink				brown transfer print		
5LA2316.100.740	5LA2316.100.741	5LA2316,100,742	5LA2316.100.743	SLA2316.100.751	SLA2316.100.760	SLA2316.100.773	5LA2316.100.808	5LA2316,100.809	5LA2316.100.824	5LA2316.100.825	5LA2316.100.858	5LA2316.100.879	5LA2316.100.892	5LA2316.100.893	5LA2316.100.932	5LA2316.100.972	5LA2316.100.979	5LA2316,100,980	5LA2316.100.991	5LA2316.101.000	5LA2316.101.004	5LA2316.101.005	5LA2316.101.010	5LA2316.101.016	5LA2316.101.019
41-21	41-22	41-23	41-24	41-28	42-04	42-17	F5-21	F5-22	F5-36	F5-37	F5-64	F5-80	F5-93	F5-94	F5-126	SCLK-09	SCLL-07	SCLL-08	SCLN-04	SCLP-05	SCLQ-04	SCLQ-05	SCLR-05	SCLS-06	SCLT-03

Prev #	Cat #	Comments	Category	Class
D-071			subsistence	consumption
D-108	two pieces refit	refit	subsistence	consumption
D-072	same design as D-076	n as D-076	subsistence	consumption
690-Q			subsistence	consumption
D-062			subsistence	consumption
D-117			subsistence	consumption
D-060			subsistence	consumption
D-101			subsistence	consumption
D-121	portion of h	portion of handle remaining, possible mug or glass	subsistence	storage
D-099	light blue g	light blue glaze with blue specks	subsistence	consumption
D-097			subsistence	consumption
D-089	one side had black and h	one side has solid black glaze, while the other has half black and half clear separated by a tan strip	subsistence	storage
D-083			subsistence	consumption
D-081			subsistence	consumption
D-079	clear glaze;	clear glaze; portion of rim; possible part of D-078	subsistence	consumption
D-073	brown/black glaze	k glaze	subsistence	storage
D-076	same design as D-072	n as D-072	subsistence	consumption
D-102	handle to a light green	handle to a lid of a tea pot or other top of pot; painted light green	subsistence	consumption
D-127	plate botton head, grasp	plate bottom fragment; makers mark, top of birds head, grasping something	subsistence	consumption
D-148	dark brown 143, D-145,	dark brown glaze; possible part of D-141, D-142, D-143, D-145, one piece has remnant of handle	subsistence	storage
D-145	dark brown 143, D-148	dark brown glaze; possible part of D-141, D-142, D-143, D-148	subsistence	storage

e storage	e storage	e storage	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e storage	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	e consumption	Concilmation
subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	cubeictonce
dark brown glaze, two bottom pieces refit; possible part of D-141, D-142, D-145, D-148	dark brown glaze; possible part of D-141, D-143	dark brown glaze; possible part of D-142, D-143, D-145, D-148		portion of bottom lip	white glaze, red paint design on top of brown strip around rim.	beneath the word "Boot" are the letters "ngland" in lower case (maker-T&R Boote, Burslem, Great Britain-Kovels' Dictionary of Marks, pg. 208a)		one piece of rim (small)				portion of base and rim, possible a bowl; clear glaze; possible part of D-079	clear glaze on one side, portion of rim					part of a handle and a maybe a plate base?							brown paint (insect wing?)	
														5LA2316.100.001	SLA2316.100.053	SLA2316.100.105	5LA2316.100.230	5LA2316.100.231	SLA2316.100.240	SLA2316.100.248	SLA2316.100.249	SLA2316.100.265	5LA2316.100.266	5LA2316.100.281	5LA2316.100.281.1	202 001 21224 13
D-143	D-142	D-141	D-133	D-049	D-146	D-058	D-052	D-030	D-124	D-122	D-032	D-078	D-057	01-01	06-22	09-12	33-03	33-04	33-43	33-51	33-52	33-16	33-17	33-32	33-32	2000

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Storage	consumption	consumption	Storage	consumption	Storage	consumption	consumption	consumption	consumption	consumption	consumption	consumption	Storage	consumption	Storage	consumption	consumption	Storage	Storage	consumption	Storage	consumption	Storage	consumption	consumption	consumption	consumption
subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence
	refit 6 of 7 pieces, makers mark (Semi-Porcelain- Henry Alcock & Co, Cobridge England) has a symbol in shape of shield with crown on top and 4 other symbols in the middle	part of same plate from lot 0, some pieces have pink and purple paint		crazed	blue, salt glaze	transfer print, red flowers					crazed			crazed		molded "X" pattern									some crazing		
5LA2316.100.294	SLA2316.100.300	5LA2316.100.313	5LA2316.100.314	5LA2316.100.318	5LA2316.100.331	5LA2316.100.332	5LA2316.100.340	5LA2316.100.363	5LA2316.100.363	5LA2316.100.368	5LA2316.100.379	5LA2316.100.401	5LA2316.100.401.1	SLA2316.100.453	5LA2316.100.454	SLA2316.100.477	5LA2316.100.478	5LA2316.100.479	5LA2316.100.480	5LA2316.100.489	5LA2316.100.501	5LA2316.100.505	5LA2316.100.506	5LA2316.100.520	SLA2316.100.523	SLA2316.100.545	SLA2316.100.546
34-07	34-13	34-26	34-27	34-55	34-32	34-33	34-66	09-20	09-20	34-51	34A-10	34A-23	34A-23	35-21	35-22	35-35	35-32	35-33	35-34	35-44	36-01	36-05	36-06	36-20	36-23	36-38 and 36-39	36-40

SLA2316.100.552 St A2316.100.554		subsistence	consumption
SLA2516.100.554	are a real	subsistence	consumption
51.40210.100.203	one piece with pink flower print and makers mark "Homer Laughlin 74 N" on the backside, another that	one strains	noistumismos
5LA2316.100.565	Constitution of the consti	subsistence	Storage
SLA2316.100.571	has pink flower print, 2 raised ridges on backside	subsistence	consumption
5LA2316.100.581		subsistence	consumption
5LA2316,100.585		subsistence	consumption
5LA2316.100.587		subsistence	consumption
5LA2316,100.598	1 piece (large) rim, very fine, no crazing	subsistence	consumption
5LA2316.100.611		subsistence	consumption
5LA2316,100.634		subsistence	Storage
5LA2316.100.635	crazed	subsistence	consumption
5LA2316.100.644		subsistence	consumption
5LA2316.100.652		subsistence	consumption
5LA2316.100.667	plate? Raised cross pattern, writing on base	subsistence	consumption
5LA2316.100.668		subsistence	Storage
5LA2316.100.669		subsistence	consumption
SLA2316.100.670	lid?; blue paint stripe; applied paint "drops"; roughened surface	subsistence	Storage
5LA2316.100.679		subsistence	Storage
5LA2316.100.683		subsistence	consumption
5LA2316.100.690		subsistence	consumption
5LA2316.100.693		subsistence	consumption
5LA2316.100.706		subsistence	consumption
SLA2316.100.707		subsistence	Storage
5LA2316.100.707		subsistence	Storage
5LA2316.100.708		subsistence	consumption
5LA2316.100.722		subsistence	consumption
SLA2316.100.723		subsistence	Storage
ST A7216 100 739	poplan	embeietence	Consumption

41-21	5LA2316.100.740		subsistence	consumption
41-22	5LA2316.100.741		subsistence	consumption
41-23	5LA2316.100.742		subsistence	consumption
41-24	5LA2316.100.743		subsistence	consumption
41-28	5LA2316.100.751		subsistence	consumption
42-04	5LA2316.100.760		subsistence	consumption
42-17	5LA2316.100.773		subsistence	consumption
5-21	5LA2316.100.808		subsistence	consumption
F5-22	5LA2316.100.809		subsistence	consumption
F5-36	5LA2316.100.824		subsistence	consumption
F5-37	5LA2316.100.825	light blue salt glaze with blue specks	subsistence	consumption
F5-64	5LA2316.100.858		subsistence	consumption
F5-80	5LA2316.100.879		subsistence	consumption
F5-93	5LA2316.100.892		subsistence	consumption
F5-94	5LA2316.100.893		subsistence	consumption
F5-126	5LA2316.100.932		subsistence	consumption
SCLK-09	5LA2316.100.972		subsistence	consumption
SCLL-07	5LA2316.100.979		subsistence	consumption
SCLL-08	5LA2316.100.980		subsistence	Storage
SCLN-04	5LA2316.100.991		subsistence	consumption
SCLP-05	5LA2316.101.000		subsistence	consumption
SCLQ-04	5LA2316.101.004		subsistence	consumption
SCLQ-05	5LA2316.101.005		subsistence	consumption
SCLR-05	5LA2316.101.010		subsistence	consumption
SCLS-06	5LA2316.101.016		subsistence	consumption
SCLT-03	SLA2316.101.019		subsistence	consumption

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Length																			
Weight	4.9	39.7	30.2	34.2	16.4	19.1	3.8	12.1	2.9	14.5	4.0	7.5	2.4	6.8	14.9	13.6	6.8	20.1	47.1
Quantity	-	_	4	2	2	-	-	-	_	2	-	-	1	_	_	_	_	-	_
Finish/shape				patent	double ring	crown											jar	square	rectangular
Portion				finish	finish	neck/finish	neck/finish	base		base/shoulder		neck					rim	base	base
Description	clear glass	clear glass	dark amber	light green glass	aqua glass	clear glass	amethyst glass	opaque white glass	clear glass	amethyst glass	clear glass	aqua glass	amber glass	opaque white glass	amethyst glass	amethyst glass	aqua glass	amethyst glass	dark amber glass
H20	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
Unit Lot	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface
Feature U	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic
Cat #																			
Prev #	D-055	D-080	D-103	D-068	D-088	D-075	D-050	D-056	D-063	D-065	D-066	D-067	D-074	D-085	D-086	D-090	D-093	D-094	D-095
Site#	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316

											2.0							
5.4	4,5	22.5	1.9	5.9	3.0	44.4	16.4	6.2	34.0	21.5	0.4	too light for scale	too light for scale	16.6	5.7	3.1	1.4	0.3
2	1	1	_	-	1	_	_	_	_	21	-	-	-	22	∞	-	_	,
				patent		rectangular	insulator				cylindrical							
				neck/finish		base		lip	base		top	body						hode
amethyst glass	opaque white glass	dark amber glass	aqua glass	amethyst glass	clear glass	dark amber glass	light green glass	dark amber glass	clear glass	clear flat glass	clear glass pestle	solarized glass	clear glass	clear flat glass	clear flat glass	clear flat glass	clear flat glass	clear vessel
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FAICE
surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	47	10	_	_	_	7	wall cleanup	_	4
										5	9	_	-	5	5	5	9	4
diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	00	∞	9	9	∞	∞	∞	∞	œ
				5LA2316.101.028						SLA2316.100.030	SLA2316.100.052	5LA2316.100.004	5LA2316.100.002	SLA2316.100.025	5LA2316.100.028	5LA2316.100.031	5LA2316.100.032	ST A 7316 100 035
D-104	D-070	D-111	D-152	D-005	D-031	D-107	D-045	D-159	D-064	90-50	06-21	01-10	01-12	05-01	05-04	05-07	06-01	86
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SI A 2316

	3.4															
0.2	9.0	2.8	0.4	0.3	9.0	0.5	2.0	2.2	1.7	8.3	3.0	0.4	9:01	8.99	2.5	8.7
-	-	8	_	_	2	_	_			_	7	-	_	-	_	
	cylindrical													screw		beveled
	end	body	0.000	body	body	body	collar	body	body	base	body			finish	base	Base
clear flat glass	clear glass pestle fragment	clear vessel glass	clear flat glass	amber vessel glass	clear vessel glass	cobalt vessel glass	amethyst vessel glass	clear vessel glass	clear vessel glass	clear vessel glass	aqua vessel glass	clear flat glass	amethyst glass	clear glass	amethyst glass	amber glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
2	6	æ	7	_	_	2	2	0	_	0	_	0	surface	surface	surface	surface
9	9	7	7	6	6	6	6	10	10	=	6	=				
*	∞	∞	∞	2	2	2	2	2	2	_	2		diagnostic	diagnostic	diagnostic	diagnostic
5LA2316.100.033	SLA2316.100.045	5LA2316.100.057	5LA2316.100.078	SLA2316.100.097	5LA2316.100.098	SLA2316.100.106	5LA2316.100.107	SLA2316.100.112	SLA2316.100.113	5LA2316.100.117	5LA2316.100.099	5LA2316.100.116				
06.02	06-14	07-03	07-24	09-04	90-60	09-13	09-14	10-01	10-02	11-01	90-60	11-02	D-151	D-059	D-028	D-046
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	51.A2316

54.6	6.7	28.1	7.4	5.3	8.2	5.5	33.8	6.3	16.7	3.9	6.5	6.9	0.7	5.8	too light for scale	0.2	5.0	73
-	-	-	_	-	_	-	-	_	-	-	-	9	-	2	-	-1	2	2
		double ring																
		neck/finish		lid	lip							body		1 pc is a base fragment	body		body	have and hody
dark amber glass	dark amber glass	light amber glass	dark amber glass	opaque white glass	clear glass	clear glass	aqua glass	clear glass	clear glass vessel glass	milk glass	amethyst glass	clear vessel glass	clear flat glass	amber vessel glass	cobalt vessel glass	clear glass	amber vessel glass	amber vessel
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FAISE
surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface		-	_	2	2	2	f*
												=	Ξ	=	=	=	=	Ξ
diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic		_	_	_	_	_	14
												SLA2316.100.118	SLA2316.100.118.01	SLA2316.100.119	5LA2316,100.128	5LA2316.100.129	SLA2316.100.130	SI A2316 100 143
D-098	D-109	D-113	D-105	D-114	D-110	D-150	D-120	D-119	D-112	D-044	D-048	11-03	11-03	11-04	11-13	11-14	11-15	11_30
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	SI A 2316

5.0	4.3	too light for scale	9.0	17.4	3.8	4.4	2.6	too light for scale	5.0	too light for scale	2.4	1.5	1.0	0.4	3.8	534.6	0.1
-	4	-	_	11	2	9	-	-	_	_	7	-	-	-	2	3	-
	body			body	body	1 pc collar, rest body	body				body	body	lid		body		
clear flat glass	clear vessel glass	cobalt glass shard	clear flat glass	clear vessel glass	dark amber vessel glass	light amber vessel glass	clear vessel glass	clear glass	clear flat glass	clear glass	clear vessel glass	clear vessel glass	opaque white glass	clear glass	clear vessel glass	clear flat glass (large)	clear glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
9	0	-	-	-	-	_	7	ъ	4	4	'n	7	-	3	9	4	_
Ξ	12	12	12	12	12	12	12	12	12	12	12	12	19	19	12	9	10
-	_	-	_	_	-	_	-	-	-	_	_	-			-	∞	2
5LA2316.100.167	SLA2316.100.177	5LA2316.100.178	SLA2316.100.179	5LA2316.100.180	SLA2316.100.181	SLA2316.100.182	5LA2316.100.193	5LA2316.100.194	5LA2316.100.201	5LA2316.100.202	5LA2316.100.203	SLA2316.100.206	SLA2316.100.212	5LA2316.100.213	SLA2316.100.205	SLA2316.100.039	SLA2316 100 364
11-37	12-01	12-03	12-04	12-05	12-06	12-07	12-18	12-19	12-23	12-24	12-25	12-28	19-02	19-03	12-27	80-90	10-05
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	51.A2316

7.0	too light	26.8	80.2	1.3	5.3	2.1	6.4	3.0	6.4	10.9	8.4	1.0	Ξ	1.5	2.6	2.9	0.5
1	_	18	15	т	9	2	2	М	7	7	7	-	_	_	-	4	_
			crown														
unknown	unknown	body	body, base, neck			body	pody	unknown	pody	body, base		body			neck		a social
aqua vessel glass	cobalt blue glass	clear vessel glass	light green vessel glass	amber glass	clear flat glass	clear vessel glass	amethyst glass	clear vessel glass	light green glass	clear vessel glass	clear flat glass	amethyst glass	clear flat glass	clear flat glass	clear vessel glass	clear flat glass	amethyst
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE	TRUE	TDITE
_		_	-	_	2	2	0	0	0	0	0	0	0	0	0	0	c
33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	13
٣	~	23		3		٣	2	3	٣	8	٣	۳	m	٣	٣	٣	,
5LA2316.100.260	5LA2316.100.261	5LA2316.100.262	5LA2316.100.263	SLA2316.100.264	5LA2316.100.279	5LA2316.100.280	SLA2316.100.232	5LA2316.100.233	5LA2316.100.234	5LA2316.100.235	5LA2316.100.236	5LA2316.100.237	5LA2316.100.238	SLA2316.100.239	5LA2316.100.241	5LA2316.100.244	SI A2216 100 246
33-11	33-12	33-13	33-14	33-15	33-30	33-31	33-05	33-06	33-07	33-08	33-36	33-40	33-41	33-42	33-44	33-47	22 40
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	51 A 2316

0.3	1.2	6:0	too light	too light	44.2	13.8	0.5	2.1	0.3	10.5	13.0	9.3	3.3	2.6	175	104.6	7.1
-	-	7	2	2	09	7	-	-	-	7	4	=	3	3	54	121	=
															1 piece has bead finish		
unknown	body		unknown	unknown		body, neck?				neck and shoulder??	body?		unknown	body	body, 3 diff bases, 2 rims		
clear vessel glass	amber glass	clear flat glass	clear vessel glass	clear glass	clear flat glass	amethyst glass	light green glass	clear vessel glass	clear flat glass	light green glass	aqua glass	clear flat glass	amethyst glass	amber glass	clear vessel glass	clear flat glass	clear flat
TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRITE
0	0	0	0	0	_	_	2	٣	3	0	0	0	0	0	0	_	_
33	33	33	33	33	33	33	33	33	33	34	34	34	34	34	34	34	72
ю	ε	6	63	6	ю	60	ю	ю	ы	ы	ю	3	23	ES.	က	ю	۲۰
5LA2316.100.247	5LA2316.100.250	5LA2316.100.254	5LA2316.100.255	5LA2316.100.257	5LA2316.100.258	5LA2316.100.259	5LA2316.100.283	5LA2316.100.286	5LA2316.100.287	5LA2316.100.288	5LA2316.100.289	5LA2316.100.296	5LA2316.100.297	5LA2316.100.298	5LA2316.100.299	5LA2316.100.315	51 42316 100 319
33-50	33-53	33-57	33-58	33-60	33-09	33-10	33-34	33-38	33-39	34-01	34-02	34-09	34-10	34-11	34-12	34-28	34-56
SLA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	SLA2316	SLA2316	5LA2316	5LA2316	51 A 2316

2.0	0.2	0.2	9.0	too light	33.2	52.7	183.5	9.0	0.4	0.2	0.3	too light	2.0	1,3	1.3	7.0	1.0
-	_	_	4	∞	ν.	7	30	-	_	_	_	2	_	7	2	33	_
					case	indeterminate finish, octagonal											
unknown	unknown	unknown		unknown	body	body, finish					unknown	unknown	unknown			body	
light green glass	clear vessel glass	light green glass	clear flat glass	clear glass	amber glass	clear vessel glass	clear flat glass	clear flat glass	aqua glass	clear flat glass	clear vessel glass	clear glass	light green glass	clear flat glass	clear flat glass	clear vessel glass	clear flat glass
TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE
_	_	_	_	_	7	2	2	7	7	2	2	2	3	3	3	3	3
34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
٣	т	6	т	3	8	m	٣	23	м	٣	М	ы	٣	٣	т	60	8
5LA2316,100.320	SLA2316.100.321	5LA2316.100.323	5LA2316.100.324	5LA2316.100.328	5LA2316.100.333	5LA2316.100.335	5LA2316.100.337	5LA2316.100.341	5LA2316.100.342	5LA2316.100.346	5LA2316.100.347	SLA2316.100.349	SLA2316.100.354	SLA2316.100.356	SLA2316.100.356	SLA2316.100.355	5LA2316.100.358
34-57	34-58	34-60	34-61	34-65	34-34	34-36	34-30	34-67	34-68	34-72	34-73	34-75	34-44	34-46	34-46	34-45	34-77
5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316

too light	too light	88.	9.3	4.7	5.2	3.1	4.0	0.3	0.2	too light	4.7	0.4	1.8	0.1	16.3	9.0	0.4
_	-	9	7	_	2	ы	\$	-	2	2	7	7	2	_	9	_	(r
				case													
unknown	unknown		body	body													
clear glass	clear glass	clear flat glass	clear vessel glass	aqua glass	clear vessel glass	clear flat glass	clear flat glass	clear glass	clear glass	clear glass	clear vessel glass	clear glass	amethyst glass	clear globe glass	clear vessel glass	clear vessel glass	clear vessel
TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FAICE
3	3	wall cleanup	wall cleanup	wall cleanup	0	0	_	_	_	-	2	2	4	4	_	_	_
34	34	34	34	34	34A	34A	34A	35	35	35	35	35	35	35	34A	34A	34A
3	3	3	ю	т	m	m	m	3/4	3/4	3/4	3/4	3/4	3/4	3/4	۳	m	(re
5LA2316,100.359	5LA2316.100.360	5LA2316.100.365	5LA2316.100.366	5LA2316.100.367	5LA2316.100.371	5LA2316.100.372	5LA2316.100.374	5LA2316.100.457	5LA2316.100.458	5LA2316.100.461	5LA2316.100.468	5LA2316.100.473	5LA2316.100.475	5LA2316.100.476	5LA2316.100.380	5LA2316.100.383	. 51 A7316 100 387
34-78	34-79	34-48	34-49	34-50	34A-02	34A-03	34A-05	35-51	35-52	35-55	35-28	35-70	35-37	35-36	34A-11	34A-39	34A-43
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	51 A7316

ght ale		ght														
too light for scale	4.4	too light	16.8	6.0	2.5	2.5	8.0	4.2	2.8	6.5	4.1	0.4	0.1	9.0		20.1
4	4	_	_	-	_	-	4	_	4	_	_	_	_	2		-
			double bead										lamtern globe		-	rectangular
			finish													base
clear glass	clear flat glass	lantern glass	vessel neck and rim	milk glass	amber glass	clear glass	opaque white glass	milk glass	clear vessel glass	dark amber glass	clear glass	clear flat glass	lamtern globe glass	amethyst glass	clear vessel	glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE		FALSE
_	_	_		_	_	0	×	~	S	S	⊢	L	F	F		surface
34A	39	39	39	39	39											
3	4	4	4	4	4	surface	surface	surface	surface	surface	surface	surface	surface	surface		diagnostic
5LA2316.100.389	5LA2316.100.663	SLA2316.100.664	SLA2316.100.665	5LA2316.100.666	SLA2316.100.672	5LA2316.101.003	5LA2316.101.008	SLA2316.101.009	5LA2316.101.014	SLA2316.101.015	5LA2316.101.020	5LA2316.101.021	5LA2316.101.022	5LA2316.101.023		5LA2316.101.034
34A-45	39-14	39-15	39-16	39-17	39-23	SCLQ-03	SCLR-03	SCLR-04	SCLS-04	SCLS-05	SCLT-04	SCLT-05	SCLT-06	SCLT-07		D-011
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	SLA2316	5LA2316	5LA2316	SLA2316	SLA2316	5LA2316	5LA2316		5LA2316

25.6	13.8	50.8	33.8	12.6	0.2	14.6	8.0	13.1	0.2	too light	too light	too light	36.0	2.2	38.5	20.2
_	_	9	e.	4	-	13	-	27	2	-	2	7	en en	2	12	13
	stopper			jar		window										
base	neck/finish		finish	lip												
clear depression glass	clear glass vessel stopper	amethyst glass	amber vessel glass	clear jar glass	amber glass	clear window glass	light green glass	clear flat glass	clear glass	clear glass	amber glass	heavily patinated glass	clear flat glass	clear glass	amethyst glass	light green
FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
surface	surface	surface	2	2	2	2	2	-	2	2	2	74	3	3	_	_
			34A	34A	34A	34A	34A	35	34A	34A	34A	34A	34A	34A	35	35
diagnostic	diagnostic	diagnostic	23	3	ы	٣	E	3/4	3	3	3	æ		8	3/4	3/4
5LA2316.101.036	5LA2316.101.037	5LA2316.101.038	5LA2316.100.398	5LA2316.100.402	5LA2316.100.402.1	5LA2316.100.403	5LA2316.100.404	5LA2316.100.441	5LA2316.100.412	5LA2316.100.415	5LA2316.100.416	5LA2316.100.417	5LA2316.100.421	5LA2316.100.426	5LA2316.100.437	5LA2316.100.438
D-013	D-014	D-015	34A-20	34A-24	34A-24	34A-25	34A-26	35-08	34A-53	34A-56	34A-57	34A-58	34A-30	34A-35	35-04	35-05
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316

0.5	85.6	35.4	3.2	0.3	4.6	1.4	0.4	0.3	9.0	41.4	1.5	0.5	12.0	6.7	9.0	0.4	3.3
_	44	10	2	_	_	_	2	1	-	2	4	_	12	2	_	_	4
	jar/screw top	plain								oval							
	min	shoulder/neck/finis h								base							
milk glass	clear vessel glass	amber vessel glass	clear vessel glass	light amber glass	clear vessel glass	clear flat glass	clear vessel glass	amber glass	clear vessel glass	opaque white vessel glass	amethyst glass	amber glass	clear vessel glass	milk glass	clear glass	clear flat glass	clear vessel
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	EALCE
_	_	_	4	4	S	٧n	v)	5	wall cleanup	0	_	_	_	_	_	2	(
35	35	35	35	35	35	35	35	35	35	36	36	36	36	36	36	36	36
3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	4	4	4	4	4	4	4	4
5LA2316.100.440	SLA2316,100,442	5LA2316,100,443	5LA2316.100.481	5LA2316.100.482	SLA2316.100.487	SLA2316.100.488	SLA2316.100.491	SLA2316.100.495	5LA2316.100.498	SLA2316.100.507	SLA2316,100,517	5LA2316.100.518	SLA2316.100.521	SLA2316.100.521.01	5LA2316.100.536	SLA2316.100.539	ST A2316 100 540
35-07	35-09	35-10	35-38	35-39	35-42	35-43	35-59	35-63	35-46	36-07	36-17	36-18	36-21	36-21	36-52	36-33	26.24
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	51 A 72 16

	ŭ												ĕ				
4.0	too light	0.5	0.5	8.3	3.2	15.4	0.1	11.6	0.2	2.6	0.7	0.3	too light	3.7	5.1	2.1	0.3
_	8	-	-	-	-	ю	-	20	-	7	-	-	-	В	5	2	_
									lantern								
						base											
aqua glass	clear glass	clear glass	aqua glass	amethyst glass	clear glass	dark amber glass	light amber glass	clear flat glass	clear lantern glass	clear glass	clear glass	clear flat glass	clear glass	amethyst glass	light green glass	clear glass	clear glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
2	2	en .	м	0	0	_	_	_	-	-	-	-	_	2	2	2	,
36	36	36	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37
4	4	4	4	5	8	S	S	Ś	8	8	5	5	2	S	S	8	5
5LA2316.100.540.1	SLA2316.100.555	SLA2316.100.553	SLA2316.100.554	SLA2316.100.556	SLA2316.100.557	SLA2316.100.559	SLA2316.100.560	SLA2316.100.562	SLA2316.100.563	5LA2316.100.566	SLA2316.100.573	SLA2316.100.576	SLA2316.100.577	SLA2316.100.580	SLA2316.100.582	SLA2316.100.584	\$1.A2316.100.588
36-34	36-59	36-47	36-48	37-02	37-03	37-05	37-06	37-08	37-09	37-12	37-33	37-36	37-37	37-19	37-21	37-23	17-10
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	SLA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316	SI A7316

0.1		14.3	2.4	0.7	0.5	5.1	2.7	8.0	3.0	1.6	12.2	1.3	8.0	0.4	too light	0.2	0.1
CI	-	2	-	2	-	∞	-	1	-	2	2	4	-	1	2	-	1
									jar								
									Pid								
clear glass	amber glass	clear vessei glass	amethyst glass	clear flat glass	amethyst glass	clear flat glass	aqua glass	clear glass	milk glass	amber glass	amethyst glass	clear lantern glass	clear flat glass	aqua glass	clear glass	clear flat glass	amber glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
23	۳	23	٣.	М	~	-	-	-	-	-	-	-	-	-	_	_	_
37	37	37	37	37	37	38	38	30	38	38	38	38	38	38	38	38	3
2	5	5	ν.	'n	~	2	2	ν.	v,	5	ν	ν.	2	2	5	S	5
SLA2316.100.589	5LA2316,100.590	SLA2316,100,591	SLA2316.100.592	SLA2316.100.593	5LA2316.100.596	5LA2316.100.600	5LA2316.100.601	5LA2316.100.604	5LA2316.100.605	5LA2316.100.606	5LA2316.100.607	5LA2316.100.608	5LA2316.100.609	5LA2316.100.610	5LA2316.100.613	SLA2316.100.614	51,A2316.100.616
37-40	37-26	37-27	37-28	37-29	37-42	38-03	38-04	38-07	38-08	38-09	38-10	38-11	38-41	38-42	38-45	38-46	38-48
5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

1.8	0.2	1.0	5.6	1.9	6.9	0.4	=	0.3	too light	0.4	0.2	9.0	6:0	4.3	5.0	8.8	8
7	2	-	=	-	9	2	2	-	-	1	-	_	-	ı	9	_	ν.
lantern	lantern										lantern						
clear lantern glass	clear lantern glass	aqua glass	clear flat glass	amethyst glass	clear glass	amber glass	dark amber glass	clear globe glass	clear glass	clear flat glass	clear lantern glass	clear glass	clear glass	clear flat glass	light green glass	aqua glass	amethyst plass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
2	7	7	2	2	2	2	2	2	2	٣	E .	8	ъ	0	_	_	_
38	38	38	38	38	38	38	38	38	38	38	38	38	38	39	39	39	95
5	S	2	S	5	S	5	S	5	5	S	S	2	5	4	4	4	4
5LA2316.100.626	5LA2316.100.627	SLA2316.100.628	SLA2316.100.629	SLA2316.100.630	5LA2316.100.631	5LA2316.100.632	SLA2316.100.633	5LA2316.100.637	5LA2316.100.638	SLA2316.100.645	SLA2316.100.646	5LA2316.100.647	5LA2316.100.650	SLA2316.100.651	SLA2316.100.673	SLA2316.100.674	SLA2316 100 675
38-22	38-23	38-24	38-25	38-26	38-27	38-28	38-29	38-50	38-51	38-38	38-39	38-40	38-50	39-01	39-24	39-25	36-98
SLA2316	SLA2316	5LA2316	SLA2316	5LA2316	SLA2316	SLA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	SLA2316	5LA2316	SLA2316	SI A2316

32.0	2.0	5.7	0.4	0.3	too light for scale	too light for scale	17.8	19.6	2.4	1.9	0.2	0.3	0.2	8.0	8.1	6.0	9.0
19	_	-	2	-	-	-	2	5	_	2	-	-	-	-	_	-	_
															base		
clear glass	aqua glass	light green glass	clear glass	clear flat glass	globe glass	clear glass	amethyst glass	clear vessel glass	light green glass	amethyst glass	amber glass	aqua glass	clear flat glass	clear glass	clear glass	light green glass	clear glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
_	_	_	_	_	_	_	2	7	7	2	7	2	7	2	Э	т	ы
39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
SLA2316.100.676	5LA2316,100.680	5LA2316.100.681	5LA2316.100.682	5LA2316,100.687	5LA2316,100.694	5LA2316.100.695	5LA2316,100,699	SLA2316.100.700	5LA2316.100.701	SLA2316.100.702	SLA2316.100.703	SLA2316.100.704	5LA2316.100.705	SLA2316.100.710	5LA2316,100,711	5LA2316.100.713	5LA2316.100.715
39-27	39-50	39-51	39-52	39-58	39-65	39-66	39-32	39-33	39-34	39-35	39-36	39-37	39-38	39-68	39-43	39-45	39-68
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

0.4	5.9	12.7	9:0	2.9	9.6	6.1	9.3	33.7	3.5	0.2	0.1	3.3	0.5	0.1	9.0	22.7	8
-	2	9	-	4	-	=	41	14	-	_	2	-	-	-	_	-	4
						lantern globe										fluted	
		rim															
clear glass	clear glass	amethyst glass	amber glass	aqua glass	very light green glass	clear globe glass	clear flat glass	clear vessel glass	clear glass	clear globe glass	clear glass	amethyst glass	amber glass	globe glass	clear glass	clear vessel glass	7up green glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
7	0	-	-	-	-	-	-	-	-	-	-	2	2	2	2	0	c
40	14	41	14	41	14	41	14	4	41	4	14	14	41	14	14	42	42
7	5	S	8	5	S	S	S	ς,	5	S	5	8	\$	ς.	5	б	(r
5LA2316.100.720	5LA2316.100.721	5LA2316.100.732	5LA2316.100.733	5LA2316.100.734	SLA2316.100.735	SLA2316.100.736	5LA2316.100.737	5LA2316.100.738	5LA2316.100.744	SLA2316.100.745	5LA2316.100.746	5LA2316.100.753	5LA2316.100.754	5LA2316.100.755	5LA2316.100.756	SLA2316.100.757	51. A2316.100.759
40-04	41-01	41-13	41-14	41-15	41-16	41-17	41-18	41-19	41-33	41-34	41-35	41-30	41-31	41-32	41-38	42-01	42-03
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	51.A2316

15.1	95.4	6.8	1.5	0.5	0.2	1.8	4.3	8.0	too light for scale	1.9	too light for scale	too light for scale	1.3	too light for scale	48.1	0.3	29.9
6	91	15	5	_	-	-	00	1	-	∞.	-	7	-	-	15	_	33
															screw		
															finish		base
clear flat glass	clear flat glass	7up green glass	clear glass	amber glass	cobalt glass	clear flat glass	clear flat glass	7 up green glass	7up green glass	clear flat glass	7up green glass	clear glass	clear flat glass	clear glass	clear vessel glass	aqua glass	amber glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
0	_	_	_	_	_	_	_	-	-	_	_	_	2	2	4	4	4
42	42	42	42	42	42	42	42	42	42	42	42	42	42	42			
ε.	М	т	3	8	m	М	~	М	ы	т	8		т	т	5	5	5
SLA2316.100.761	5LA2316.100.762	5LA2316.100.769	5LA2316.100.770	SLA2316.100.771	SLA2316.100.772	5LA2316.100.774	5LA2316.100.776	5LA2316.100.778	5LA2316.100.779	5LA2316.100.780	5LA2316.100.782	5LA2316.100.783	5LA2316.100.784	SLA2316.100.785	SLA2316.100.800	5LA2316,100.801	5LA2316.100.802
42-05	42-06	42-13	42-14	42-15	42-16	42-19	42-21	42-23	42-24	42-25	42-27	42-28	42-18	42-29	F5-13	F5-14	F5-15
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

7.6	7.1	0.5	39	2.6	6.0	0.4	6.7	8.4	0.1	0.2	0.2	1.6	1.8	5.0	8.0	0.4	2.2
14	7	7	4	-	7		4	0	-	-	2	_	7	m	-	4	-
		lantern															
			neck/rim									base					
clear flat glass	light green glass	clear thin glass	lantern glass	opaque white glass	clear flat glass	clear globe glass	clear vessel glass	clear flat glass	clear globe glass	amethyst glass	clear glass	aqua vessel glass	clear flat glass	clear vessel glass	amber glass	clear glass	amber glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
4	4	4	4	4	4	S	S	S	S	\$	v	9	9	9	9	9	7
S	S	5	\$	S	S	S	S	S	S	S	'n	S	S	'n	S	8	S
SLA2316.100.803	5LA2316.100.804	5LA2316.100.805	5LA2316.100.806	5LA2316.100.807	5LA2316.100.810	5LA2316.100.821	SLA2316.100.822	5LA2316.100.823	5LA2316.100.826	5LA2316.100.828	5LA2316.100.830	SLA2316.100.838	5LA2316.100.839	5LA2316.100.840	5LA2316.100.841	SLA2316.100.842	5LA2316.100.852
F5-16	F5-17	F5-18	F5-19	F5-20	F5-137	F5-33	F5-34	F5-35	F5-138	F5-140	F5-142	F5-45	F5-46	F5-47	F5-48	F5-143	F5-58
SLA2316	5LA2316	5LA2316	SLA2316	SLA2316	SLA2316	SLA2316	SLA2316	SLA2316	SLA2316	5LA2316	SLA2316	SLA2316	SLA2316	5LA2316	5LA2316	SLA2316	5LA2316

52.5	£.	9.3	1.6	11.1	5.8	2.6	0.4	0.2	21.0	9.0	5.1	20.5	22.5	80 E.	9.0	1.5	2.9
6	-	-	_	22	_	2	_	2	6	-	m	٣	20	_	_	_	4
	lantern	jar										ribbed		canning jar			
	rin	rim							finish			base		lid			
clear vessel glass	clear lantern glass rim (scalloped)	amethyst glass	aqua glass	clear flat glass	clear glass	clear glass	clear flat glass	clear glass	clear vessel glass	clear flat glass	clear vessel glass	amethyst vessel glass	clear flat glass	milk glass canning jar tid	clear flat glass	clear glass	amber glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
7	7	7	7	7	7	7	7	7	∞	∞	6	6	6	6	6	6	10
5	8	5	5	5	5	5	5	5	5	5	5	5	5	5	8	5	2
5LA2316.100.853	5LA2316.100.854	5LA2316,100.855	SLA2316.100.856	5LA2316.100.857	5LA2316.100.862	5LA2316.100.864	5LA2316.100.865	5LA2316.100.866	5LA2316.100.877	5LA2316.100.878	5LA2316,100,888	5LA2316.100.889	5LA2316,100.890	5LA2316,100.891	5LA2316,100.895	5LA2316.100.896	5LA2316.100.907
F5-59	F5-60	F5-61	F5-62	F5-63	F5-144	F5-146	F5-147	F5-148	F5-78	F5-79	F5-89	F5-90	F5-91	F5-92	F5-149	F5-150	F5-107
SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

		,															
15 69	2 1.5	2 4.2	1 5.0	5 3.5	1 0.4	1 0.2	3 0.3	5 2.2	2 1.3	2 0.6	2 1.8	3 0.6	2 6.0	38 109.8	3.4	3 2.7	. 69
				.,			.,,			,				C.			
clear flat glass	aqua glass	clear vessel glass	milk glass	clear patinated glass	amethyst glass	clear globe glass	clear glass	clear flat glass	clear vessel glass	clear glass	amber glass	clear flat glass	clear vessel glass	clear vessel glass	light green glass	light green glass	amethyst
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FAICE
10	10	10	10	01	10	0	01	Ξ	=	=	12	12	13	13	ᄕᅩ	Ö	7
8	5	8	\$	S	5	δ.	S	5	ν.	5	5		s,	8	surface	surface	200
5LA2316.100.908	5LA2316.100.909	5LA2316.100.910	5LA2316,100.911	SLA2316.100.912	SLA2316.100.915	5LA2316.100.916	SLA2316.100.917	SLA2316.100.924	SLA2316.100.925	SLA2316,100.926	SLA2316.100.930	SLA2316.100.931	SLA2316,100,936	SLA2316.100.944	SLA2316,100.948	SLA2316.100.951	730 001 7166 4 13
F5-108	F5-109	F5-110	F5-111	F5-112	F5-153	F5-154	F5-155	F5-119	F5-120	F5-156	F5-124	F5-125	F5-130	F5-158	SCLF-01	SCLG-03	1010
5LA2316	5LA2316	5LA2316	SLA2316	SLA2316	SLA2316	SLA2316	5LA2316	SLA2316	SLA2316	SLA2316	SLA2316	5LA2316	5LA2316	SLA2316	SLA2316	SLA2316	2120413

6		park	S			S		∞ 0	5.			2	10	8	2	20	5
1.9	1.9	4.3	16.5	2.9	6.1	4.6	7.0	15.8	16.5	3.3	4.4	2.2	3.5	7.8	0.2	3.8	10.5
п г	2	-	2	-	т	\$	en	2	4	en	5	-	-	-	-	2	23
			jar														
			E.														
glass clear flat	light amber glass	dark amber glass	amethyst glass	aqua glass	light green glass	clear vessel glass	clear flat glass	amethyst glass	light green glass	clear vessel glass	clear flat glass	clear flat glass	clear vessel glass	amber glass	clear flat glass	clear vessel glass	light green glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
× -	×	×	×	¥	×	×	×	ŗ	ī		'n	-	_	-	Ξ	Η	д
surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface
5LA2316.100.971	5LA2316.100.971	5LA2316.100.970	5LA2316.100.969	5LA2316.100.968	5LA2316.100.967	5LA2316.100.966	5LA2316.100.965	5LA2316.100.963	5LA2316.100.962	5LA2316.100.961	5LA2316.100.960	5LA2316.100.956	5LA2316.100.955	5LA2316.100.954	5LA2316.100.953	5LA2316.100.952	5LA2316.100.957
SCLK-08	SCLK-08	SCLK-07	SCLK-06	SCLK-05	SCLK-04	SCLK-03	SCLK-02	SCLJ-07	SCLJ-06	SCLJ-05	SCLJ-04	SCL1-03	SCL1-02	SCL1-01	SCLH-08	SCLH-07	90-H-OS
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

6.0	1.4	2.3	11.8	7.9	10.4	11.8	1.3	3.1	0.2	1.0	5.1	6.0	1.1
-	-	2	3	-	8	2	-	-	_	1	-	2	_
een	χ;	ssel	ass	een	ass	St	at	glass	st	ass	75	ass	St
light green	amethyst glass	clear vessel	E clear glass	light green	aqua glass	amethyst glass	clear flat glass	E amber glass	amethyst glass	E clear glass	amethyst glass	E clear glass	amethyst glass
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
1	٦	-1	Σ	Σ	Σ	Σ	X	z	0	0	а.	۵	0
surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface
SLA2316.100.976	SLA2316.100.977	SLA2316.100.978	SLA2316.100.983	SLA2316.100.984	SLA2316.100.985	5LA2316.100.986	SLA2316.100.987	SLA2316.100.990	5LA2316.100.994	5LA2316.100.995	SLA2316.100.998	SLA2316.100.999	SLA2316.101.002
SCLL-04	SCLL-05	90-TTOS	SCLM-03	SCLM-04	SCLM-05	SCLM-06	SCLM-07	SCLN-03	SCLO-03	SCLO-04	SCLP-03	SCLP-04	SCLQ-02
SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	SLA2316

Late							8161			8161		1930	1930		8161	1918	1930	1918	1929	1918
							great .			_		-	-		-	-	-		_	
Early Date						1905	1880	1873		1880			1860	1873	1880	1880		1880	1915	1880
Modified	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
Makers Mark																		"I" or "I"	Ŷ	
Embossing			cursive "oleig"					capital letters "M", "E", and "N"					"OFF."		"E" "QU"					
Color	colorless	colorless	amber	light green	adna	colorless	amethyst	opaque white	colorless	amethyst	colorless	adna	amber	opaque white	amethyst	amethyst	adna	amethyst	amber	amethyst
Thickness				3.2 (lip)																
Diameter				4 cm (neck)		2.6 (lip)														
Length																				
Cat#																				
Prev #	D-055	D-080	D-103	D-068	D-088	D-075	D-050	D-056	D-063	D-065	D-066	D-067	D-074	D-085	D-086	D-090	D-093	D-094	D-095	D-104

	1929	1930	1918		1929	1930		1929			1918							
1873	9161		1880		5161			9161			1880							
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
					♦			<u>^</u>										
"I" "D" "A"	BOTTLE MADE IN	"OR"																
opaque white	amber	adna	amethyst	colorless	amber	light green	amber	colorless	colorless	colorless	amethyst	colorless	colorless	colorless	coloriess	colorless	colorless	colorless
								0.7	1/8			0.1	8/1	8/1	1/8	1/8		1/8
							2 cm	9.9		0.5								
										2.0								
			SLA2316.101.028						5LA2316.100.030	SLA2316.100.052	SLA2316.100.004	5LA2316.100.002	SLA2316.100.025	5LA2316.100.028	5LA2316.100.031	SLA2316.100.032	5LA2316.100.035	SLA2316.100.033
D-070	D-111	D-152	D-005	D-031	D-107	D-045	D-159	D-064	90-50	06-21	01-10	01-12	05-01	05-04	05-07	06-01	06-04	06.02

			1930			1918				1930		8161		1918		1929
			1860			1880						1880	1920	1880		9161
FALSE	FALSE	FALSE	FALSE	FALSE												
															<d13></d13>	^
												"Ł"		raised pattern of triangles and rectangles		MADE IN USA
colorless	colorless	colorless	amber	colorless	cobalt	amethyst	colorless	colorless	colorless	adna	colorless	amethyst	colorless	amethyst	amber	amber
		1/16							0.7		1/8		0.4			
0.3									4.0				4.5			
3.4																
5LA2316.100.045	5LA2316.100.057	5LA2316.100.078	5LA2316.100.097	5LA2316.100.098	5LA2316.100.106	5LA2316.100.107	5LA2316.100.112	5LA2316.100.113	5LA2316.100.117	5LA2316.100.099	5LA2316.100.116					
06-14	07-03	07-24	09-04	50-60	09-13	09-14	10-01	10-02	11-01	90-60	11-02	D-151	D-059	D-028	D-046	D-098

						1924				1918			1930			1930	1930	
	1905					1912			1873	1880			1860	1890		0981	1860	
FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE
cursive "le"		cursive "ole"	D CAP			"E-Z" & "SEA"	"B" and indistinguisahable		"T"/"THO"									
amber	amber	amber	opaque white	colorless	colorless	adna	colorless	colorless	opaque white	amethyst	colorless	colorless	amber	cobalt	colorless	amber	amber	colorless
	٨		0.3									1/8						1/8
			6.2 (projected)															
											5LA2316.100.118	5LA2316.100.118.01	5LA2316.100.119	SLA2316.100.128	5LA2316.100.129	5LA2316.100.130	5LA2316.100.143	5LA2316.100.167
D-109	D-113	D-105	D-114	D-110	D-150	D-120	D-119	D-112	D-044	D-048	11-03	11-03	11-04	11-13	11-14	11-15	11-30	11-37

				1930	1930												1930
				1860	1860							1873					
FALSE																	
colorless	cobalt	colorless	colorless	dark amber	light amber	colorless	colorless	colorless	colorless	colorless	colorless	opaque white	colorless	colorless	colorless	colorless	adna
		1/8						8/1							1/4		
00.177	90.178	90.179	00.180	00.181	00.182	00.193	00.194	00.201	00.202	00.203	00.206	00.212	00.213	00.205	00.039	00.364	00.260
5LA2316.100.177	5LA2316.100.178	5LA2316.100.179	5LA2316 100 180	5LA2316.100.181	5LA2316,100.182	5LA2316.100.193	5LA2316.100.194	5LA2316.100.201	5LA2316.100.202	5LA2316.100.203	5LA2316.100.206	5LA2316.100.212	5LA2316.100.213	5LA2316.100.205	5LA2316,100.039	5LA2316.100.364	5LA2316.100.260
12-01	12-03	12-04	12-05	12-06	12-07	12-18	12-19	12-23	12-24	12-25	12-28	19-02	19-03	12-27	80-90	10-05	33-11

		1930	1930			1918		1930			1925					1918	
			1860			1880		•			1880					1880	
FALSE																	
cobalt	colorless	light green	amber	colorless	colorless	amethyst	colorless	light green	colorless	amethyst	colorless						
				1/8						1/8		8/1	8/1		8/1		
5LA2316.100.261	5LA2316.100.262	5LA2316.100.263	SLA2316.100.264	5LA2316.100.279	5LA2316.100.280	5LA2316.100.232	5LA2316.100.233	5LA2316.100.234	5LA2316.100.235	5LA2316.100.236	SLA2316.100.237	5LA2316.100.238	5LA2316.100.239	SLA2316.100.241	5LA2316.100.244	5LA2316.100.246	5LA2316.100.247
33-12	33-13	33-14	33-15	33-30	33-31	33-05	33-06	33-07	33-08	33-36	33-40	33-41	33-42	33-44	33-47	33-49	33-50

1930					1918	1930			1930	1930		1918	1930				1930
1860					1880							1880	1860				
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE							
														horizontal arrow			
"EM"														l piece- "Dacc Col Trad"			
light amber	colorless	colorless	colorless	colorless	amethyst	light green	coloriess	coloriess	light green	aqua	colorless	amethyst	amber	colorless	colorless	colorless	light green
	1/8							1/8			1/8				1/8		
250	254	.255	.257	.258	.259	.283	.286	.287	.288	289	.296	.297	.298	.299	.315	319	.320
5LA2316.100.250	SLA2316.100,254	SLA2316.100.255	SLA2316,100.257	SLA2316.100,258	SLA2316,100,259	SLA2316.100.283	5LA2316.100.286	SLA2316.100.287	SLA2316.100.288	SLA2316.100.289	SLA2316,100,296	SLA2316.100.297	SLA2316.100.298	SLA2316.100.299	5LA2316.100.315	5LA2316.100.319	5LA2316.100.320
33-53	33-57	33-58	33-60	33-09	33-10	33-34	33-38	33-39	34-01	34-02	34-09	34-10	34-11	34-12	34-28	34-56	34-57

	1930			1930				1930				1930					
				1860													
FALSE																	
				"Rau"													
colorless	light green	colorless	colorless	amber	coloriess	colorless	colorless	adna	colorless	colorless	colorless	light green	colorless	coloriess	colorless	colorless	colorless
						1/16	1/16						1/16			1/16	
5LA2316.100.321	SLA2316.100.323	5LA2316.100.324	5LA2316.100.328	5LA2316.100.333	5LA2316.100.335	SLA2316.100.337	5LA2316.100.341	5LA2316.100.342	5LA2316.100.346	5LA2316.100.347	5LA2316.100.349	5LA2316.100.354	5LA2316.100.356	5LA2316.100.356	SLA2316.100.355	5LA2316.100.358	5LA2316.100.359
34-58 5	34-60 5	34-61 5	34-65 5	34-34 5	34-36 5	34-30 5	34-67 5	34-68 5	34-72 5	34-73 5	34-75 5	34-44 5	34-46 5	34-46 5	34-45 5	34-77 5	34-78

FALSE	FALSE	FALSE	FALSE 1930	FALSE	FALSE 1880 1918	FALSE	FALSE	FALSE	FALSE	FALSE							
colorless	1/8 colorless	colorless	aqua	colorless	1/8 colorless	1/16 colorless	colorless	colorless	colorless	colorless	colorless	amethyst	colorless	colorless	colorless	colorless	colorless
5LA2316.100.360	5LA2316.100.365	5LA2316.100.366	5LA2316.100.367	5LA2316.100.371	5LA2316.100.372	5LA2316.100.374	5LA2316.100.457	5LA2316.100.458	5LA2316.100.461	5LA2316.100.468	5LA2316.100 473	5LA2316,100,475	5LA2316.100.476	5LA2316.100.380	5LA2316.100.383	5LA2316.100.387	5LA2316,100,389
34-79	34-48	34-49	34-50	34A-02	34A-03	34A-05	35-51	35-52	35-55	35-28	35-70	35-37	35-36	34A-11	34A-39	34A-43	34A-45

	1918				1930					1930				
	1880				1860		1873	1873		1860	1873			
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
"O" with diamond on tomp horizontally on one side, "b" or "p" on other														
					"h's"									
colorless	amethyst	colorless	colorless	colorless	amper	colorless	opaque white	opaque white	colorless	amber	opaque white	colorless	colorless	colorless
			1/16											1/16
5LA2316.101.034	5LA2316.101.023	5LA2316.101.022	SLA2316.101.021	SLA2316.101.020	5LA2316.101.015	5LA2316.101.014	5LA2316.101.009	SLA2316.101.008	5LA2316.101.003	5LA2316.100.672	5LA2316.100.666	5LA2316.100.665	SLA2316.100.664	5LA2316.100 663
D-011	SCLT-07	SCLT-06	SCLT-05	SCLT-04	SCLS-05	SCLS-04	SCLR-04	SCLR-03	SCLQ-03	39-23	39-17	39-16	39-15	39-14

1964		1918			1930		1930				1930				1918	1930
39		1880			09						1860				1880	
1939	f # 1		f*1	[+1	0981	f*1	[2]	f*1	[*1]	[*]		(*)	(*)	(*)		(*)
FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE										
		yes														yes
colorless	colorless	amethyst	amber	colorless	amber	colorless	light green	colorless	light green	colorless	amber	colorless	coloriess	colorless	amethyst	light green
						1/16		1/16					1/16			
5LA2316.101.036	5LA2316.101.037	5LA2316.101.038	5LA2316,100.398	5LA2316,100,402	5LA2316.100.402.1	5LA2316.100.403	5LA2316.100.404	5LA2316,100,441	5LA2316.100.412	5LA2316.100.415	5LA2316.100.416	5LA2316.100.417	5LA2316,100,421	5LA2316.100.426	5LA2316.100.437	5LA2316.100.438
D-013	D-014	D-015	34A-20	34A-24	34A-24	34A-25	34A-26	35-08	34A-53	34A-56	34A-57	34A-58	34A-30	34A-35	35-04	35-05

		1930		1930				1930			1918	1930					
1873		1860		1860				1860		1873	1880	1860		1873			
FALSE	FALSE	FALSE	FALSE														
opaque white	colorless	amber	colorless	light amber	colorless	colorless	colorless	amber	colorless	opaque white	amethyst	amber	colorless	opaque white	colorless	colorless	colorless
						8/1									·	1/16	
5LA2316.100.440	5LA2316.100.442	5LA2316.100.443	5LA2316.100.481	5LA2316.100.482	5LA2316.100.487	5LA2316.100.488	5LA2316.100.491	5LA2316.100.495	5LA2316.100.498	5LA2316.100.507	5LA2316.100.517	5LA2316.100.518	5LA2316.100.521	5LA2316.100.521.01	5LA2316.100.536	5LA2316.100.539	5LA2316.100.540
35-07	35-09	35-10	35-38	35-39	35-42	35-43	35-59	35-63	35-46	36-07	36-17	36-18	36-21	36-21	36-52	36-33	36-34

1930			1930	1918		1930	1930							1918			
				1880		1860	1860							1880			
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
		-															
adna	colorless	colorless	aqua	amethyst	colorless	amber	light amber	colorless	colorless	colorless	colorless	colorless	colorless	amethyst	light green	colorless	colorless
								1/16				91/1					
100.540.1	100.555	100.553	100.554	100.556	100.557	100.559	100.560	100.562	100.563	995:001	100.573	925.001	100.577	100.580	100.582	100.584	100.588
5LA2316.100.540.1	SLA2316.100.555	SLA2316.100.553	SLA2316.100.554	SLA2316.100.556	SLA2316,100,557	SLA2316.100.559	SLA2316.100.560	5LA2316.100.562	SLA2316.100.563	SLA2316.100.566	SLA2316.100.573	SLA2316.100.576	SLA2316.100.577	5LA2316.100.580	5LA2316.100.582	SLA2316.100.584	5LA2316.100.588
36-34	36-59	36-47	36-48	37-02	37-03	37-05	37-06	37-08	37-09	37-12	37-33	37-36	37-37	37-19	37-21	37-23	37-39

	1930		1918		1918		1930			1930	1918			1930			1930
	1860		1880		1880				1873	1860	1880						1860
FALSE	TRUE	FALSE															
colorless	amber	colorless	amethyst	colorless	amethyst	colorless	aqua	colorless	opaque white	light amber	amethyst	colorless	colorless	enbe	colorless	colorless	amber
				91/1		1/16											
5LA2316.100.589	5LA2316.100.590	5LA2316.100.591	5LA2316.100.592	5LA2316.100.593	5LA2316.100.596	5LA2316.100.600	5LA2316.100.601	5LA2316.100.604	5LA2316.100.605	5LA2316.100.606	5LA2316.100.607	5LA2316.100.608	5LA2316.100.609	5LA2316.100.610	5LA2316.100.613	5LA2316.100.614	5LA2316.100.616
37-40	37-26	37-27	37-28	37-29	37-42	38-03	38-04	38-07	38-08	38-09	38-10	38-11	38-41	38-42	38-45	38-46	38-48

		1930		1918		1930	1930								1930	1930	1918
				1880		1860	1860										1880
FALSE																	
colorless	colorless	ta Tables	colorless	amethyst	colorless	amber	amber	colorless	light green	a	amethyst						
cole	cole	aqua	col	аш	los	am	am	col	col	los	col	col	colo	col	ligh	adna	amo
			1/16							1/16				1/8			
5LA2316.100.626	SLA2316,100,627	5LA2316,100,628	5LA2316,100,629	5LA2316.100.630	5LA2316.100.631	5LA2316.100.632	5LA2316.100.633	5LA2316.100.637	5LA2316.100.638	5LA2316.100.645	5LA2316.100.646	5LA2316.100.647	5LA2316.100.650	5LA2316.100.651	5LA2316.100.673	5LA2316.100.674	5LA2316.100.675
5LA231	SLA231	5LA231	5LA23	5LA231	5LA231												
38-22	38-23	38-24	38-25	38-26	38-27	38-28	38-29	38-50	38-51	38-38	38-39	38-40	38-50	39-01	39-24	39-25	39-26

	1930	1930					1918		1930	1918	1930	1930					
(1)	(*)	(11)	(*)	(*)		[2]	1880		(2)	1880	1860	m	m		(*)		(*)
FALSE																	
colorless	edna	light green	colorless	colorless	colorless	coloriess	amethyst	coloriess	light green	amethyst	amber	enbe	colorless	colorless	colorless	light green	colorless
				1/16													
5LA2316.100.676	5LA2316.100.680	5LA2316.100.681	5LA2316.100.682	5LA2316.100.687	5LA2316.100.694	5LA2316.100.695	5LA2316.100.699	5LA2316.100.700	SLA2316.100.701	SLA2316.100.702	5LA2316.100.703	SLA2316.100.704	5LA2316.100.705	5LA2316.100.710	SLA2316.100.711	5LA2316.100.713	5LA2316.100.715
39-27	39-50	39-51	39-52	39-58	39-65	39-66	39-32	39-33	39-34	39-35	39-36	39-37	39-38	39-68	39-43	39-45	39-69

		1880 1918	1860 1930	1930	1930							1880 1918	1860 1930				1865
FALSE																	
colorless	colorless	amethyst	amber	aqua	light green	colorless	1/8 colorless	colorless	colorless	colorless	colorless	amethyst	amber	colorless	colorless	colorless	green
5LA2316.100.720	5LA2316.100.721	5LA2316.100.732	5LA2316.100.733	5LA2316.100.734	5LA2316.100.735	5LA2316.100.736	5LA2316.100.737	5LA2316.100.738	5LA2316.100.744	5LA2316.100.745	5LA2316.100.746	5LA2316.100.753	5LA2316.100.754	5LA2316.100.755	5LA2316,100,756	5LA2316.100.757	5LA2316,100.759
40-04	41-01	41-13	41-14	41-15	41-16	41-17	41-18	41-19	41-33	41-34	41-35	41-30	41-31	41-32	41-38	42-01	42-03

				1930												1930	1930
		1865		1860				1865	1865		1865						1860
FALSE																	
colorless	colorless	green	colorless	amber	cobalt	colorless	colorless	green	green	colorless	green	colorless	colorless	colorless	colorless	aqua	amber
1/8	1/8					1/8	1/8			1/8			1/8				
5LA2316.100.761	5LA2316.100.762	5LA2316.100.769	SLA2316.100.770	5LA2316.100.771	5LA2316.100.772	5LA2316.100.774	5LA2316.100.776	5LA2316.100.778	SLA2316.100.779	5LA2316.100.780	5LA2316.100.782	5LA2316.100.783	5LA2316.100.784	5LA2316.100.785	5LA2316.100.800	5LA2316.100.801	5LA2316.100.802
42-05	42-06	42-13	42-14	42-15	42-16	42-19	42-21	42-23	42-24	42-25	42-27	42-28	42-18	42-29	F5-13	F5-14	F5-15

	1930									1918		1930			1930		1930
				1873						1880					1860		1860
FALSE																	
colorless	light green	colorless	colorless	opaque white	colorless	colorless	colorless	colorless	colorless	amethyst	colorless	adna	colorless	colorless	amper	colorless	amber
1/8					8/1			1/8					1/8				
5LA2316.100.803	5LA2316.100.804	5LA2316.100.805	5LA2316.100.806	5LA2316.100.807	5LA2316,100,810	5LA2316.100.821	5LA2316.100.822	5LA2316.100.823	5LA2316.100.826	5LA2316.100.828	5LA2316.100.830	5LA2316.100.838	5LA2316.100.839	5LA2316.100.840	5LA2316.100.841	5LA2316.100.842	5LA2316.100.852
5LA231	5LA23	5LA231	5LA231	5LA231	5LA23	5LA23	5LA231	5LA231									
F5-16	F5-17	F5-18	F5-19	F5-20	F5-137	F5-33	F5-34	F5-35	F5-138	F5-140	F5-142	F5-45	F5-46	F5-47	F5-48	F5-143	F5-58

		1918	1930									8161					1930
		1880										1880		1873	•		1860
FALSE																	
														"Whit"			
colorless	colorless	amethyst	aqua	coloriess	colorless	coloriess	colorless	colorless	colorless	colorless	colorless	amethyst	colorless	opaque	colorless	colorless	amber
				1/8			1/8			1/16			1/16		1/16		
5LA2316.100.853	5LA2316.100.854	SLA2316.100 855	SLA2316.100.856	SLA2316.100.857	SLA2316.100.862	SLA2316.100.864	5LA2316.100.865	5LA2316.100.866	SLA2316.100.877	SLA2316.100.878	5LA2316.100.888	SLA2316.100.889	5LA2316.100.890	5LA2316.100.891	SLA2316.100.895	SLA2316.100.896	SLA2316 100 907
F5-59	F5-60	F5-61	F5-62	F5-63	F5-144	F5-146	F5-147	F5-148	F5-78	F5-79	F5-89	F5-90	F5-91	F5-92	F5-149	F5-150	FS_107

	1930				1918						1930				1930	1930	1918
			1873		1880						1860						1880
FALSE																	
															g	g	
colorless	adna	colorless	opaque	colorless	amethyst	colorless	colorless	colorless	colorless	colorless	amber	colorless	colorless	colorless	light green	light green	amethyst
1/16								1/16				1/16					
5LA2316.100.908	5LA2316.100.909	5LA2316.100.910	5LA2316.100.911	5LA2316.100.912	5LA2316.100.915	5LA2316.100.916	5LA2316,100.917	5LA2316.100.924	5LA2316.100.925	5LA2316.100.926	5LA2316.100.930	5LA2316.100.931	5LA2316.100.936	5LA2316.100.944	5LA2316.100.948	5LA2316.100.951	5LA2316.100.956
	5LA2	5LA2	5LA2	5LA2	5LA2	SLA2	SLA2		SLA2	SLA2	SLA2	SLA2	SLA2	5LA2			
F5-108	F5-109	F5-110	F5-111	F5-112	F5-153	F5-154	F5-155	F5-119	F5-120	F5-156	F5-124	F5-125	F5-130	F5-158	SCLF-01	SCLG-03	SLCH-05

1930			1930					1930	1918			1930	1930	1918	1930	1930	
			1860		•				1880					1880	1860	1860	
FALSE																	
			"ah"														
light green	colorless	colorless	amber	colorless	colorless	colorless	colorless	light green	amethyst	colorless	colorless	light green	adna	amethyst	amper	light amber	colorless
		1/16			1/8	1/16				1/8							1/16
5LA2316.100.957	5LA2316.100.952	5LA2316.100.953	5LA2316.100.954	5LA2316.100.955	5LA2316.100.956	5LA2316.100.960	5LA2316.100.961	5LA2316.100.962	5LA2316.100.963	5LA2316.100.965	5LA2316.100.966	5LA2316.100 967	5LA2316.100.968	5LA2316.100.969	5LA2316.100.970	5LA2316.100.971	ST A2316 100 975
SCLH-06	SCLH-07	SCLH-08	SCLI-01	SCLI-02	SCLI-03	SCLJ-04	SCLJ-05	SCLJ-06	SCLJ-07	SCLK-02	SCLK-03	SCLK-04	SCLK-05	SCLK-06	SCLK-07	SCLK-08	SC11-03

30	18			30	30	8		30	00		80		8
1930	1918			1930	1930	1918		1930	1918		1918		1918
	1880					1880		1860	1880		1880		1880
FALSE													
light green	amethyst	colorless	colorless	light green	aqua	amethyst	colorless	amber	amethyst	colorless	amethyst	colorless	amethyst
gil	ап	03	03	gil	aq	ап	8	ап	ап	8	ап	8	ап
							1/16						
9/	77	78	83	84	85	98	87	8	94	95	86	66	02
5LA2316.100.976	5LA2316.100.977	5LA2316.100.978	5LA2316.100.983	5LA2316.100.984	5LA2316,100.985	5LA2316.100.986	5LA2316.100.987	5LA2316.100.990	5LA2316.100.994	5LA2316.100.995	5LA2316.100.998	5LA2316.100.999	5LA2316,101,002
								5LA2	5LA2		5LA2	5LA2	
SCLL-04	SCLL-05	SCLL-06	SCLM-03	SCLM-04	SCLM-05	SCLM-06	SCLM-07	SCLN-03	SCLO-03	SCLO-04	SCLP-03	SCLP-04	SCLQ-02

Prev# Cat#	Comments	Category	Class
		indeterminate	indeterminate
		indeterminate	indeterminate
	fragments arranged make word fragment "oleig"	indeterminate	indeterminate
	Flat or patent neck finish; transparent light green in color; seam ends beneath lip suggesting Blowing in mold	indeterminate	indeterminate
	Double ring neck finish	indeterminate	indeterminate
	Neck Finish = Crown lip; side seam runs through top ABM	indeterminate	indeterminate
	portion of a rim starting to taper into neck	indeterminate	indeterminate
	portion of base; three letters, first "M" (partly broken off), "E", and "N" (partly broken off)	indeterminate	indeterminate
	three rounded ridges	indeterminate	indeterminate
D-065	one piece is a portion of the base; second piece is a portion of the base of the neck leading into the body of the bottle	indeterminate	indeterminate
D-066	clear glass, has a white film on two sides	indeterminate	indeterminate
D-067	portion of top of a bottle	indeterminate	indeterminate
D-074	embossed lettering "OFF."	indeterminate	indeterminate
D-085	purple coloring on one side	indeterminate	indeterminate
D-086	embossed letters "E" "QU"	indeterminate	indeterminate
D-090		indeterminate	indeterminate
	jar rim piece	subsistence	storage
	bottom fragment of a square bottle, top of a "T" or "I" embossed on bottom	indeterminate	indeterminate
D-095	embossed "I" in a diamond (only half present) on bottom; edges have flakes taken off, has been made into a tool; The Illinois Glass Company (www blm.gov/historic_bottles/markersmarks.htm, The Illinois Glass Company, by Bill Lockhart)	indeterminate	indeterminate
		indeterminate	indeterminate

indeterminate indeterminate	personal medicine	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	he Illinois indeterminate indeterminate	hardware electrical	indeterminate indeterminate	from 1916- indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	subsistence consumption	indeterminate indeterminate	subsistence consumption					
indeterminable word, three letters "I", "D", "A"	shape suggests use possibly for medicine; most likely same type of bottle D-98	embossed lettering, "OR"	inside diameter of opening 1/2", no seam visible, flat or patent finish, 1880-1915		The Illinois Glass Company (www.blm.gov/historic_bottles/markersmarks.htm, The Illinois Glass Company, by Bill Lockhart); same type of bottle as D-095	very thick, possible insulator for electrical fixtures	Thickness varies along rim	embossed capital I enclosed in horizontal diamond; Illinois Glass CO - Used mark from 1916- 1929			screen size .0625	Screen size WR					flakes?	
			5LA2316.101.028						5LA2316.100.030	5LA2316.100.052	5LA2316.100.004	5LA2316.100.002	5LA2316.100.025	5LA2316,100,028	5LA2316.100.031	5LA2316.100.032	5LA2316,100,035	

indeterminate	consumption	window glass	alcohol	consumption	indeterminate	consumption	consumption	consumption	consumption	consumption	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	medicine
indeterminate	subsistence	architecture	recreation	subsistence	indeterminate	subsistence	subsistence	subsistence	subsistence	subsistence	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	personal
does not refit with other piece but looks like it is the same as the one found in lot 10													сар	shapes	embossed D13 enclosed in a horizontal diamond, inside of pontill mark; Base shape=beveled ideal	embossed capital 1 in the diamond enclosed in a larger circle, Illinois Glass Company 1916- 1929 mark looked strikingly similar may be wrong though
does not refit with other piece but look												embossed letter "F"	Very large bottle; screw top with metallic cap	raised pattern of triangles, and rectangular shapes	embossed D13 enclosed in a horizontal diar ideal	embossed capital 1 in the diamond enclosed in a larger circl 1929 mark looked strikingly similar may be wrong though
5LA2316.100.045 does not refit with other piece but look	5LA2316.100.057	5LA2316.100.078	5LA2316.100.097	5LA2316.100.098	5LA2316.100.106	5LA2316.100.107	5LA2316.100.112	5LA2316.100.113	5LA2316.100.117	5LA2316.100.099	5LA2316.100.116	embossed letter "F"	Very large bottle; screw top with metallic	raised pattern of triangles, and rectangular	embossed D13 enclosed in a horizontal diar ideal	embossed capital 1 in the diamond enclosed 1929 mark looked strikingly similar may be

indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	es that go around indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	heir Marks, pg. indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	fom a electrical indeterminate indeterminate	indeterminate indeterminate	subsistence consumption	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	indeterminate indeterminate	recreation alcohol	
cursive "le" apart of "oleig" which is part of another undetermined word	neck finish: double ring lip, seam indicates ABM post 1905	cursive "ole" apart of "oleig" which is part of another undetermined word	embossed letters "d cap" - not enough to determine what it says; 4 visible lines that go around the top		possible worked	possible made by Sealfast, Upland Flint Bottle Company, (Bottle Makers and Their Marks, pg. 466, by Julian Harrison Toulouse)	embossed "B" and undistinguishable character	worked	two ridges at top of piece; letter "T" and below that the letters "THO";possible from a electrical fixture?								possibly worked
											5LA2316.100.118	5LA2316.100.118.01	5LA2316.100.119	5LA2316.100.128	5LA2316.100.129	5LA2316.100.130	5LA2316.100.130 5LA2316.100.143
D-109	D-113	D-105	D-114	D-110	D-150	D-120	D-119	D-112	D-044	D-048	11-03	11-03	11-04	11-13	11-14	11-15	11-15

consumption	indeterminate	indeterminate	consumption	alcohol	alcohol	consumption	indeterminate	indeterminate	indeterminate	consumption	consumption	indeterminate	indeterminate	consumption	indeterminate	indeterminate	indeterminate
subsistence	indeterminate	indeterminate	subsistence	recreation	recreation	subsistence	indeterminate	indeterminate	indeterminate	subsistence	subsistence	indeterminate	indeterminate	subsistence	indeterminate	subsistence	subsistence
												part of a lid?			counter or case glass?		
5LA2316.100.177	5LA2316.100.178	5LA2316.100.179	5LA2316.100.180	5LA2316.100.181	SLA2316.100.182	5LA2316.100.193	5LA2316.100.194	SLA2316.100.201	5LA2316.100.202	5LA2316.100.203	5LA2316.100.206	5LA2316.100.212 part of a lid?	5LA2316.100.213	5LA2316.100.205	5LA2316.100.039 counter or case glass?	5LA2316.100.364	5LA2316.100.260

indeterminate indeterminate	subsistence consumption	subsistence consumption	recreation alcohol	indeterminate indeterminate	subsistence indeterminate	subsistence indeterminate	subsistence indeterminate	subsistence indeterminate	subsistence consumption	indeterminate indeterminate	subsistence indeterminate	indeterminate indeterminate	indeterminate indeterminate	subsistence indeterminate	indeterminate indeterminate	subsistence consumption	indeterminate indeterminate
0 261	0.262	0.263	0 264	0.279	0.280	0.232	0.233 one piece is ribbed horizontally	0.234	0.235	0.236	9.237	0.238	9.239	0.241	0.244	0.246	1247
5LA2316.100.261	5LA2316.100.262	5LA2316 100.263	5LA2316.100,264	5LA2316.100,279	5LA2316.100.280	5LA2316.100.232	5LA2316.100.233	5LA2316.100.234	5LA2316.100.235	SLA2316,100,236	5LA2316.100.237	5LA2316.100.238	SLA2316.100.239	SLA2316.100.241	SLA2316.100.244	5LA2316,100,246	5LA2316.100.247
33-12	33-13	33-14	33-15	33-30	33-31	33-05	33-06	33-07	33-08	33-36	33-40	33-41	33-42	33-44	33-47	33-49	33-50

alcohol	indeterminate	alcohol	consumption	indeterminate	indeterminate	indeterminate											
recreation	indeterminate	subsistence	indeterminate	indeterminate	subsistence	indeterminate	subsistence	indeterminate	subsistence	subsistence	indeterminate	subsistence	recreation	subsistence	indeterminate	indeterminate	subsistence
														3 different vessels			
SLA2316.100.250	5LA2316 100.254	SLA2316.100.255	SLA2316 100.257	5LA2316.100.258	5LA2316.100.259	5LA2316.100.283	SLA2316.100.286	5LA2316.100.287	SLA2316.100 288	SLA2316.100.289	5LA2316.100.296	5LA2316.100.297	5LA2316.100.298	SLA2316.100.299 3 different vessels	5LA2316.100.315	SLA2316.100.319	SLA2316.100.320

indeterminate	indeterminate	indeterminate	indeterminate	alcohol	indeterminate	window glass	window glass	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	window glass	indeterminate	indeterminate	window glass	indeterminate
indeterminate	indeterminate	indeterminate	indeterminate	recreation	subsistence	architecture	architecture	subsistence	indeterminate	subsistence	indeterminate	subsistence	architecture	indeterminate	subsistence	architecture	indeterminate
						po											
						highly patinated											
5LA2316.100.321	5LA2316.100.323	5LA2316.100.324	5LA2316.100.328	5LA2316.100.333	SLA2316.100.335	5LA2316.100.337	5LA2316.100.341	5LA2316.100.342	SLA2316.100.346	5LA2316.100.347	5LA2316.100.349	SLA2316.100.354	SLA2316.100.356	5LA2316.100.356	SLA2316.100.355	5LA2316.100.358	SLA2316,100.359
34-58 5L	34-60 SL	34-61 SL	34-65 SL	34-34 SL,	34-36 SLA	34-30 5L/	34-67 5L	34-68 5L	34-72 SL	34-73 5L/	34-75 SL/	34-44 SL	34-46 SLA	34-46 SL	34-45 SLA	34-77 SLA	34-78 SLA

indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	window glass	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate						
indeterminate	indeterminate	subsistence	indeterminate	indeterminate	indeterminate	architecture	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate						
						patinated							melted?				
5LA2316.100.360	5LA2316.100.365	5LA2316.100.366	5LA2316.100.367	5LA2316.100.371	SLA2316.100.372	SLA2316.100.374 patinated	5LA2316.100.457	SLA2316.100.458	5LA2316.100.461	SLA2316.100.468	SLA2316.100.473	SLA2316.100.475	5LA2316.100.476 melted?	5LA2316.100.380	5LA2316.100.383	5LA2316.100.387	SLA2316.100.389

architecture window glass	domestic furniture	indeterminate indeterminate	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	architecture window glass	indeterminate indeterminate	indeterminate indeterminate	personal medicine
		double bead finish, I in diameter							embossed lettering "h's"					only have half of base so part of mark is missing, mark is zero or "O" with diamond on top horizontally, has "o" to one side and what looks like a "p" or 'b" but hard to tell because it is broken off. There is a similar mark by the Owens Illinois Pacific
5LA2316.100.663	5LA2316.100.664	5LA2316,100,665	SLA2316.100.666	5LA2316,100,672	5LA2316.101.003	5LA2316,101,008	51.A2316.101.009	5LA2316.101.014	5LA2316.101.015	5LA2316.101.020	5LA2316.101.021	5LA2316,101.022	5LA2316.101.023	5LA2316.101 034
39-14	39-15	39-16	39-17	39-23	SCLQ-03	SCLR-03	SCLR-04	SCLS-04	SCLS-05	SCLT-04	SCLT-05	SCLT-06	SCLT-07	D-011

indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	alcohol	window glass	indeterminate	window glass	indeterminate	indeterminate	alcohol	indeterminate	window glass	indeterminate	indeterminate	indeterminate
indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	recreation	architecture	indeterminate	architecture	indeterminate	indeterminate	recreation	indeterminate	architecture	indeterminate	indeterminate	indeterminate
depression glass; only piece found on site (so far), approx. base diameter of 2 3/4", Very similar to the Sandwich design by Hocking Glass Company, 1939-1964	2 continuous seams up neck and over finish, diameter of interior opening 5/8"	embossed lettering on 2 pcs; 2 pieces side or base, not enough letters to tell what it says, cannot be refit.		patinated	possible flake?? Has what looks like possible flakes scars	highly patinated							patinated			one piece lightly embossed
5LA2316.101.036	5LA2316.101.037	5LA2316.101.038	5LA2316.100.398	5LA2316.100.402	SLA2316.100.402.1	5LA2316.100.403	5LA2316.100.404	5LA2316.100.441	5LA2316.100.412	5LA2316.100.415	5LA2316.100.416	5LA2316.100.417	5LA2316.100.421	5LA2316.100.426	5LA2316.100.437	5LA2316.100.438
D-013	D-014	D-015	34A-20	34A-24	34A-24	34A-25	34A-26	35-08	34A-53	34A-56	34A-57	34A-58	34A-30	34A-35	35-04	35-05

indeterminate indeterminate	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	architecture window glass	indeterminate indeterminate
0	2	3		7		90		10	80		_	80		.01 one is a jar rim			
SLA2316.100.440	SLA2316,100,442	5LA2316.100.443	5LA2316.100.481	5LA2316.100.482	5LA2316.100.487	5LA2316.100.488	51.A2316.100.491	5LA2316.100.495	5LA2316.100.498	SLA2316.100.507	SLA2316.100.517	5LA2316.100.518	5LA2316.100.521	SLA2316.100.521.0	5LA2316.100.536	SLA2316.100.539	5LA2316.100.540
35-07	35-09	35-10	35-38	35-39	35-42	35-43	35-59	35-63	35-46	36-07	36-17	36-18	36-21	36-21	36-52	36-33	36-34

indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	alcohol	alcohol	window glass	indeterminate	indeterminate	indeterminate	window glass	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate
indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	recreation	recreation	architecture	indeterminate	indeterminate	indeterminate	architecture	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate
in with clear glass on fs list						one piece partial bottle base											
SLA2316.100.540.1 in with clear glass on fs list	5LA2316.100.555	5LA2316.100.553	SLA2316.100.554	SLA2316.100.556	5LA2316.100.557	5LA2316.100.559 one piece partial bottle base	5LA2316.100.560	5LA2316.100.562	5LA2316,100.563	5LA2316.100.566	5LA2316.100.573	SLA2316.100.576	5LA2316.100.577	5LA2316.100.580	5LA2316.100.582	5LA2316.100.584	51 A2316 100 588

indeterminate	alcohol	indeterminate	indeterminate	window glass	indeterminate	window glass	indeterminate	indeterminate	indeterminate	alcohol	indeterminate	furniture	indeterminate	indeterminate	indeterminate	indeterminate	alcohol
indeterminate	recreation	indeterminate	indeterminate	architecture	indeterminate	architecture	indeterminate	indeterminate	indeterminate	recreation	indeterminate	domestic	Indeterminate	indeterminate	indeterminate	indeterminate	recreation
							aybe some use ware??				ı center						
							almost looks like a flake, maybe some use ware??				one piece has raised ridge in center						
289	290	165	592	593	965	009		604	909	909		809	609	019	613	614	919
5LA2316.100.589	5LA2316.100.590	SLA2316.100.591	SLA2316.100.592	5LA2316.100.593	5LA2316.100.596	5LA2316.100.600	5LA2316.100.601	5LA2316.100.604	5LA2316.100.605	5LA2316.100.606	5LA2316.100.607	5LA2316.100.608	SLA2316.100.609	5LA2316.100.610	5LA2316.100.613	SLA2316.100.614	5LA2316,100,616
37-40	37-26	37-27	37-28	37-29	37-42	38-03	38-04	38-07	38-08	38-09	38-10	38-11	38-41	38-42	38-45	38-46	38-48

indeterminate indeterminate architecture indeterminate recreation recreation indeterminate	indeterminate	indeterminate	indeterminate	window glass	indeterminate	indeterminate	alcohol	alcohol	indeterminate	indeterminate	window glass	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	1
	indeterminate	indeterminate	indeterminate	architecture	indeterminate	indeterminate	recreation	recreation	indeterminate	indeterminate	architecture	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	
	3LAZ510.100 020	5LA2316.100.627	5LA2316.100.628	5LA2316.100 629	5LA2316.100.630	5LA2316.100.631	5LA2316.100.632	5LA2316.100.633	5LA2316.100.637	5LA2316.100 638	5LA2316.100 645	5LA2316.100 646	5LA2316.100 647	5LA2316.100.650	5LA2316.100 651	5LA2316.100.673	5LA2316.100 674	51 A7214 100 675

indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	architecture window glass	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate					
5LA2316 100 676	5LA2316.100.680	5LA2316.100.681	5LA2316 100 682	SLA2316.100.687	SLA2316.100.694	SLA2316.100.695	SLA2316.100.699	SLA2316.100.700	SLA2316 100.701	5LA2316.100.702	5LA2316.100.703	5LA2316.100.704	5LA2316.100.705 lantem glass?	SLA2316 100.710	SLA2316 100 711	5LA2316.100.713	SLA2316 100 715
39-27	39-50	39-51	39-52	39-58	39-65	39-66	39-32	39-33	39-34	39-35	39-36	39-37	39-38	39-68	39-43	39-45	39-69

indeterminate	indeterminate	indeterminate	alcohol	indeterminate	alcohol	indeterminate	indeterminate	indeterminate	indeterminate								
indeterminate	indeterminate	indeterminate	recreation	indeterminate	recreation	indeterminate	indeterminate	indeterminate	indeterminate								
			heavily patinated														
SLA2316.100.720	SLA2316.100.721	5LA2316.100.732	5LA2316.100.733 heavily patinated	5LA2316.100.734	5LA2316.100.735	5LA2316.100.736	SLA2316.100.737	5LA2316.100.738	SLA2316.100.744	SLA2316.100.745	5LA2316.100.746	5LA2316.100.753	SLA2316.100.754	5LA2316.100.755	SLA2316.100.756	SLA2316.100.757	5LA2316.100.759

indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	indeterminate indeterminate	recreation alcohol	indeterminate indeterminate	recreation alcohol											
SLA2316.100.761	5LA2316.100.762	5LA2316 100 769	5LA2316 100 770	5LA2316.100.771	SLA2316.100.772	SLA2316.100.774	5LA2316.100.776	5LA2316.100.778	SLA2316.100.779	5LA2316.100.780	5LA2316.100.782	5LA2316.100.783	5LA2316.100.784	5LA2316.100.785	5LA2316.100.800	5LA2316.100.801	5LA2316 100 802
42-05	42-06	42-13	42-14	42-15	42-16	42-19	42-21	42-23	42-24	42-25	42-27.	42-28	42-18	42-29	F5-13	F5-14	F5-15

indeterminate	indeterminate	indeterminate	furniture	indeterminate	alcohol	indeterminate	olcohol										
indeterminate	indeterminate	indeterminate	domestic	indeterminate	recreation	indeterminate	exit to a distribution of the control of the contro										
5.100.803	.100.804	.100.805	100.806	.100 807	100.810	.100.821	.100.822	.100.823	.100.826	.100.828	.100.830	100.838	100.839	100.840	100.841	100.842	100 852
3LAZ310.100.803	5LA2316.100.804	5LA2316.100 805	5LA2316.100.806	5LA2316.100 807	5LA2316.100.810	5LA2316.100.821	5LA2316.100.822	5LA2316.100.823	5LA2316.100.826	5LA2316.100.828	5LA2316.100.830	5LA2316.100.838	5LA2316.100.839	5LA2316.100.840	SLA2316 100.841	5LA2316.100.842	51.42316 100 852

indeterminate	furniture	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	window glass	indeterminate	indeterminate	window glass	storage	window glass	indeterminate	alcohol
indeterminate	domestic	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	architecture	indeterminate	indeterminate	architecture	subsistence	architecture	indeterminate	recreation
		single thread							one finish piece								
5LA2316.100 853	5LA2316.100.854	SLA2316.100.855 single thread	5LA2316.100.856	5LA2316.100.857	5LA2316.100.862	5LA2316.100.864	5LA2316.100.865	5LA2316.100.866	5LA2316.100.877 one finish piece	5LA2316.100.878	5LA2316.100.888	5LA2316.100.889	5LA2316.100.890	5LA2316.100.891	5LA2316.100.895	SLA2316.100 896	5LA2316.100.907

window glass	indeterminate	window glass	indeterminate	indeterminate	alcohol	window glass	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate						
architecture	indeterminate	architecture	indeterminate	indeterminate	recreation	architecture	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate						
														1/8 screen			
														1/8			
5LA2316.100.908	5LA2316.100.909	5LA2316.100.910	5LA2316.100.911	5LA2316.100.912	5LA2316.100.915	5LA2316.100.916	5LA2316.100.917	5LA2316.100.924	5LA2316.100.925	5LA2316.100.926	5LA2316.100.930	5LA2316.100.931	5LA2316.100.936	5LA2316.100.944 1/8	5LA2316.100.948	5LA2316.100.951	5LA2316.100.956

indeterminate	indeterminate	window glass	alcohol	indeterminate	indeterminate	window glass	indeterminate	alcohoi	alcohol	window glass							
indeterminate	indeterminate	architecture	recreation	indeterminate	indeterminate	architecture	indeterminate	recreation	recreation	architecture							
			sed letters ".ah."														
			embossed letters ".ah."														
5LA2316 100.957	5LA2316 100.952	5LA2316 100 953	5LA2316 100 954 embossed letters ".ah"	5LA2316 100.955	SLA2316 100.956	5LA2316 100.960	5LA2316.100.961	5LA2316.100.962	5LA2316.100.963	5LA2316.100.965	5LA2316,100.966	5LA2316.100.967	5LA2316.100.968	5LA2316.100.969	SLA2316.100,970	5LA2316.100.971	51 A2316 100 975

indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	window glass	alcohol	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate
indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	architecture	recreation	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate
316.100.976	316.100 977	316.100.978	316.100.983	316.100.984	316.100.985	316.100.986	316.100.987	316.100.990	316.100.994	316.100.995	316.100.998	316.100.999	316.101.002
5LA2316.100.976	5LA2316.100.977	5LA2316,100.978	SCLM-03 5LA2316.100.983	SCLM-04 SLA2316.100.984	SCLM-05 5LA2316.100.985	SCLM-06 SLA2316.100.986	51.A2316.100.987	5LA2316.100.990	SLA2316,100.994	5LA2316.100.995	5LA2316.100.998	5LA2316.100.999	SLA2316.101.002

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Site #	Prev #	Cat #	Feature	Unit	Lot	Description	Quantity	Weight	Comments	Category	Class
5LA2316	34A-16	5LA2316.100.394	٣	34A	7	leather fragments, horse tack??	19	55.3	1" straps and other fragments, some with metal grommets	Indeterminate	Indeterminate
5LA2316	34-05	5LA2316.100.292	E)	34	0	black leather strap fragment?	-	6.0		Indeterminate	Indeterminate
5LA2316	34-18	5LA2316,100.305	3	34	_	leather fragments	2	3.3	1 flat piece, 1 strand	Indeterminate	Indeterminate
5LA2316	35-03	5LA2316.100.436	3/4	35	_	leather fragment??	-	0.4		Indeterminate	Indeterminate
5LA2316	39-28	5LA2316.100.696	4	39	73	brown leather strap fragment	-	0.4		Indeterminate	Indeterminate
5LA2316	41-11	SLA2316,100,730	5	41	_	black leather scrap	-	6.0		Indeterminate	Indeterminate
5LA2316	F5-10	SLA2316.100.797	5		4	black leather strap	-	0.4		Indeterminate	Indeterminate
5LA2316	F5-32	5LA2316.100.820	5		5	black leather strap	-	8.0	1" wide	Indeterminate	Indeterminate
5LA2316	F5-43	SLA2316.100.836	5		9	black leather strap	-	0.1		Indeterminate	Indeterminate
5LA2316	F5-66	5LA2316,100,860	5		7	black leather fragments	91	8.3		Indeterminate	Indeterminate
5LA2316	F5-67	5LA2316.100.861	5		7	brown leather horse tack	6	38.8		livestock	tack
SLA2316	F5-71	5LA2316.100.870	5		00	brown leather tack	3	1.1	corner piece with hole	livestock	tack
5LA2316	F5-106	SLA2316.100.906	8		10	brown leather straps with rivets (horse tack)	9	14.7	strap 3/4" wide,	livestock	tack
5LA2316	F5-134	SLA2316,100.940	V		13	brown leather (horse tack)	6	16		livestock	tack
5LA2316	F5-160	SLA2316.100.946	5		13	brown leather fragments	32	38.5	1/8 screen	Indeterminate	Indeterminate

	Prev #	Cat #	Feature	Unit	Lot	H20	Description	Material	Quantity	Weight	Length	Width
5LA2316	D-147		diagnostic		surface	FALSE	square metal piece		-	29.9	2 in	1 3/4 in
5LA2316	D-160		diagnostic		surface	FALSE	spoon, decorated vesta pattern (as shown in many of Sears-Roebuck catalogues)		-	11.4	8.8 cm	2
5LA2316	D-082		diagnostic		surface	FALSE	small metal wheel bearing with wooden wheel (furniture, chair?)		_	49.8 g		
	D-156		diagnostic		surface	FALSE	metal buckle part		-	12.2		
	D-100		diagnostic		surface	FALSE	metal spring with hinged wire		-	6.7		
5LA2316	D-136		diagnostic		surface	FALSE	grey enameled tin pot fragment		-			
SLA2316	D-153		diagnostic		surface	FALSE	strap iron		-			
5LA2316	D-139		diagnostic		surface	FALSE	possible tin woodstove plate		-			
SLA2316	D-155		diagnostic		surface	FALSE	harness clip		-			
SLA2316	D-126		diagnostic		surface	FALSE	bucket w/bale	galvanized tin	_			
SLA2316	D-091		diagnostic		surface	FALSE	barrel hoop		-			
5LA2316	D-087		diagnostic		surface	FALSE	square metal plate		_	35.0	2 1/4 in	1 1/4 in
5LA2316	D-084		diagnostic		surface	FALSE	metal strap with four hole		_	135.2	7 3/8 in	1 3/4 in
SLA2316	D-061		diagnostic		surface	FALSE	metal garter clip		_	1.9		
SLA2316	D-036		diagnostic		surface	FALSE	metal strap with rivets		_	8.7	15.3mm	
5LA2316	D-077		diagnostic		surface	FALSE	metal barrel hoop		-			
SLA2316	D-116		diagnostic		surface	FALSE	metal fragment		_	25.5		
5LA2316	D-118		diagnostic		surface	FALSE	metal buckle		-	21.6		
SLA2316	D-137		diagnostic		surface	FALSE	round metal fragment with slit puncture		-	2.3		
5LA2316	D-125		diagnostic		surface	FALSE	barrel hoop		_			
SLA2316	D-128		diagnostic		surface	FALSE	barrel hoop		_			
5LA2316	D-129		diagnostic		surface	FALSE	tin stove plate		-			
21004 13	923						probable car seat or single bed					

		11 3/4 in				1 1/2 in						2			10																	
		113				117						11/2			10.5																	
	5.3	19.8	1.0	25.6		4.0	0.2	7.1	9.3	0.4	3.5	9	1.9	=	14	0.3	8.5	1.3	0.6	6.0	1.7	0.7	0.4	1.5	8.0	2.0	5.4	13.0	44.8	10.4	18.2	•
	_	-	-	-	-	_	-	2	-	-	15	2	19	_	-	3	17	4	15	_	_	_	2	_	2	3	_	4	33	2	=	
						ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	
olde chambed the car por magnicus	metal buckle	metal strap with rivets	round metal with hole punched in center	metal stove fragment	tin stove part	wire staple	flat metal fragment	barb wire	barb wire	flat metal fragment	flat metal fragments	wire staple	metal fragments	wire	metal axle??pin?	metal fragments	metal fragments	metal fragments	metal fragments	metal snap fragment (female)	metal snap (male)	rivet	metal fragment	metal wire	metal fragment	metal fragments	wire staple	metal garter clips	metal fragments	twisted metal wire	wire fragments	•
	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
200	surface	surface	surface	surface	surface	_	_	2	5	-	3	10	10	3	9	9	7	wall clean-up	6	4	_	_	_	_	2	_	2	2	2	2	2	
						_	_	-	-	4	5	9	9	7	7	7	7	7	7	90	6	6	6	6	6	=	=	-	=	=	Ξ	
did Gillouis	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	9	9	9	9		∞	00	90	∞	∞	∞	00	∞	00	2	2	2	2	2	2	-	_	-	-	-	-	
						5LA2316,100,003	5LA2316,100,005	5LA2316.100.008	5LA2316.100.009	5LA2316.100.024	5LA2316,100,029	5LA2316.100.050	5LA2316.100.054	5LA2316.100.059	5LA2316.100.070	5LA2316.100.074	SLA2316.100.075	SLA2316.100.080	5LA2316,100.081	5LA2316.100.093	SLA2316.100.094	5LA2316.100.095	5LA2316,100,100	5LA2316.100.103	5LA2316.100.111	5LA2316.100.121	5LA2316.100.133	5LA2316.100.134	5LA2316.100.132	5LA2316.100.138	5LA2316,100,139	
	D-024	D-053	D-033	D-135	D-123	01-11	01-13	01-02	90-10	04-01	05-05	61-90	06-23	07-05	07-16	07-20	07-21	07-26	07-27	08-12	09-01	09-03	09-07	01-60	81-60	11-06	11-18	11-19	11-17	11-23	11-24	
0167076	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	SLA2316	

													-		3			3.2			3.3									
															2.9			14.8			4.2								2.9	
0.6	6.0	0.2	0.3	too light for scale	21.8	2.7	73.8	21.9	too light for scale	1.6	8.0	6.0	1.3	0.1	0.5	16.3	5.8	691	0.1	0.5	19.6	1.0	1.3	29	31.2	6.89	1.9	1.2	1.3	3.5
٠,	3	-	4	-	26	-	23	29	7	4	7	-	3	_	-	51	-	_	-	-	-	-	-	-	_	-	6	91	-	·
terrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	ferrous	
metal fragments	metal fragment	metal fragment	metal fragment	metal fragment	metal fragments	twisted wire	flat metal fragments	wire fragments	small metal fragments	metal fragments	metal wire fragment	flat metal fragment	flat metal fragments	flat metal fragment	small flat metal strip	flat metal fragment	wire fragment	metal gate latch	flat metal fragment	flat metal fragment	metal buckle	metal fragment	metal fragment	wire	twisted wire	barb wire	metal fragments	metal fragments	metal fragment, cylindrical in shape	C-10-0
TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE	FATOR
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-	1A	-	-	_	-	-	118	118	_	-	-	-	-	_	-	-	-	-	-	-					2		-	-		c
5LA2316.100.141	5LA2316.100.145	5LA2316.100.149	5LA2316.100.150	SLA2316.100.151	SLA2316.100.153	SLA2316.100.155	5LA2316.100.158	SLA2316.100.159	5LA2316.100.160	5LA2316.100.162	5LA2316.100.164	SLA2316.100.165	5LA2316.100.166	5LA2316.100.169	5LA2316.100.184	SLA2316.100.185	5LA2316.100.190	SLA2316.100.191	5LA2316.100.198	5LA2316.100.199	SLA2316.100.207	5LA2316.100.209	5LA2316.100.215	5LA2316.100.208	5LA2316.100.082	5LA2316.100.022	5LA2316.100.220	5LA2316.100.221	SLA2316.100.223	100001
11-47	11-32	11-44	11-45	11-46	11-25	11-27	11-38	11-39	1148	11-50	11-52	11-53	11-36	11-39	12-09	12-10	12-15	12-16	12-31	12-21	14-01	14-03	22-01	14-02	08-01	03-03	12-32	12-32	13-02	
5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	SLA2316	5LA2316	SLA2316	5LA2316	SLA2316	SLA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	SLA2316	

0.4	8.0	1.8	4.0	5.3	1.8	1.6	1.4	13.0	49	0.4	10.2	8.0	0.2	20.1	31.0	13.1	3.3	10.3	47.0	5.7	0.4	0.5	0.4	115.3	13.8	1.5	0.4	21.4	8.0	12.7	2.0
-	-	-	2	6	_	4	_	4	-	2	2	-	_	4	-	10	_	1	-	-	-	2	-	-	1	-	1	3	_	-	,
tack	tack	tack	tack	tack	tack	metal fragments	tack	metal garter clips	barbed wire, Double stranded with two point barb on one strand	metal fragments	wire	metal fragment	metal fragment	staples	metal ring	metal fragments (oval shaped??) with punctured holes	metal washer	large screw	large bolt with square head	wire fragment	flat metal fragment	metal fragments	metal fragment	large metal fragment	wire	wire tack	ferrous metal fragment	bent and twisted wire	metal brad	aluminum sprinkler top- external cap with 9 sprinkler holes	wire framents
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	74107								
-	6	2	3	5	9	5	4	2	0	_	_	0	2	_	_	_	_	2	2	2	2	2	2	0	0	_	_	2	_	surface	4
34A	9	7	7	7	7	=	00	11	25	30	31	33	=	35	35	35	35	35	35	35	35	35	35	33	33	34A	34A	34A	39	ic	6
r	00	00	00	∞	00	_	61	-				3	-	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3	3	3	3	3	4	diagnostic	,
3LAZ310.100.373	5LA2316,100.049	SLA2316.100.055	5LA2316,100,060	5LA2316.100.064	5LA2316.100.068	5LA2316.100.162	5LA2316.100.089	5LA2316.100.134	5LA2316.100.224	5LA2316.100.225	5LA2316.100.226	5LA2316.100.228	5LA2316.100.140	5LA2316.100.446	5LA2316.100.448	SLA2316.100.449	5LA2316.100.451	5LA2316.100.463	5LA2316.100.464	5LA2316.100.466	5LA2316.100.467	5LA2316.100.472	5LA2316.100.474	5LA2316.100.229	5LA2316.100.243	5LA2316.100.384	5LA2316.100.385	5LA2316.100.392	5LA2316.100.671	5LA2316.101.024	
2444-00	81-90	07-01	90-20	07-10	07-14	11-50	80-80	11-19	25-01	30-01	31-01	33-01	11-42	35-13	35-15	35-16	35-19	35-23	35-24	35-26	35-27	35-69	35-66	33-02	33-46	34A-40	34A-41	34A-14	39-22	D-001	
3LA2310	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	

0.3	1.4	_	3.2	201	0.4	4.0	0.7	3.6	28.6	=	4.4	9.0	0.2	too light for scale	too light for scale	3.3	31.7	8.0	0.3	0.7	4.2	5.4	2.3	15.1	43.8	9.0	too light	9.1	0.7	Ξ	too light
-	-	2	9	-	-	-	-	-	5	7	-	-	-	-	Ю	9	-	-	es.	2	7	-	7	_	-	-	-	8	-	_	_
metal staple? Oval shaped	wire	small washers	metal fragments	metal stove part??	metal fragment	metal fragment	textured metal fragment	metal rivet	wire fragments	small staples	large metal staple	flat metal fragment	flat metal fragment	flat metal fragment	flat metal fragments	metal fragments	4 sided metal piece with a threaded end	metal fragment	flat metal fragments	metal fragments	metal fragments	metal ring, oval shape	metal bucket discs	metal "grater"? Fragment	metal pan handle	metal rivet	flat metal fragment	metal wire fragments	metal fragment	metal rivet	flat metal fragment
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
33 0	33 1	33 1	33 1	33 1	3 2	34 0	1 1	34 1	1 1	1 4	34 1	34 1	34 1	34 1	34 1	34 2	34 2	34 2	34 2	34 3	34A 2	34A 2	34A 2	34A 3	34A 3	34A 3	34A 3	35 1	35 1	35 4	5 4
		3		3				3						3		3			3								3	3/4 3		3/4 3	3/4 3
SLA2316.100.256	SLA2316.100.274	SLA2316.100.276	5LA2316.100.277	SLA2316.100.278	5LA2316.100.282	SLA2316.100.291	5LA2316.100.302	5LA2316.100.306	5LA2316.100.311	5LA2316.100.312	5LA2316.100.312.1	5LA2316.100.317	SLA2316.100.322	SLA2316.100.325	5LA2316.100.326	SLA2316.100.334	SLA2316.100.339	5LA2316.100.343	5LA2316.100.345	5LA2316.100.353	5LA2316.100.397	5LA2316.100.399	5LA2316.100.400	5LA2316.100.422	5LA2316.100.423	5LA2316.100.424	5LA2316.100.430	5LA2316.100.434	5LA2316.100.439	5LA2316.100.483	5LA2316.100.484
33-59	33-25	33-27	33-28	33-29	33-33	34-04	34-15	34-19	34-24	34-25	34-25	34-54	34-59	34-62	34-63	33-35	34-39	34-69	34-71	34-43	34A-19	34A-21	34A-22	34A-31	34A-32	34A-33	34A-61	35-01	35-06	35-57	35-58
5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	\$LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

	126.7	0.5	0.2	too light	6.0	86.4	4.1	6.0	Ξ.	1.9	0.2	23.4	126.1	4.0	0.6	4.1	0.7	0.5	1.0	9.0	6.6	0.2	9.0	0.5	too light	7.8	9'0	4.2	too light	1,0
	_	_	_	3	2	-	-	1	-	-	-	10	2	-	2	-	-	3	4	-	2	_	-	9	-	13	-	-	-	-
TOTOCOLOG	large bolt with square head	flat metal fragment	flat metal fragment	metal fragments	flat metal fragments	large, flat, ridged metal fragment with 1 big hole in the middle and 1 small hole near the complete end that is rounded.	fence staple	tack	flat metal fragment	metal washer, bucket?	small tack	flat metal fragments	large metal bolts, round head, square nut	metal clip	fence staples	fence staple	metal fragment	metal fragments	ferrous metal fragments	wire fragment	fence staples	small tack	tack	metal fragments	metal fragment	flat metal fragments	brad	fence staple	flat metal fragment	Contract the state of the
70771	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
)	5	5	5	2	wall cleanup	0	0	0	0	0	_	_	_	-	_	-	_	_	2	2	2	2	2	2	2	-	1	_	2	
)	35	35	35	35	35	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	37	37	37	37	
	3/4	3/4	3/4	3/4	3/4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	2	5	
200100100100	5LA2316.100.486	5LA2316.100.493	5LA2316.100.494	5LA2316.100,496	5LA2316.100.499	5LA2316.100.508	5LA2316.100.511	5LA2316.100.512	5LA2316.100.513	5LA2316.100.514	5LA2316.100.519	SLA2316.100.522	SLA2316.100.524	5LA2316.100.530	5LA2316.100.532	5LA2316.100.534	5LA2316.100.537	5LA2316.100.538	5LA2316.100.541	5LA2316.100.542	5LA2316.100.543	5LA2316.100.547	5LA2316.100.548	5LA2316.100.551	5LA2316.100.557	5LA2316.100.567	5LA2316.100.569	SLA2316.100.572	5LA2316.100.583	
	35-41	35-61	35-62	35-64	35-47	36-08	36-11	36-12	36-13	36-14	36-19	36-22	36-24	36-30	36-32	36-50	36-53	36-54	36-35	36-36	36-37	36-41	36-42	36-55	36-61	37-13	37-15	37-32	37-22	
	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	

1.4	22.8	2.8	89.3	10.7	1.9	200	20.4	23.4	9'0	17.2	144	0.1	193.3	228.3	1.9	53.5	12.6	4.2	1.0	1.5	0.4	10.7	0.5	8.4	1.8	1.7
3	7	2	17	4	-	23	14	4	-	9	30	-	139	61	_	_	_	_	_	_	_	_	_	_	_	-
flat metal fragments	flat metal fragments with white enamel	wire fragments	metal fragments	metal bucket handle discs	copper rivet with black leather in- between	metal springs (bed or car seat?)	metal fragments	wire	tack	metal fragments	metal fragments	rivet fragment	metal fragments	metal fragments	wire	large bolt with washer	wire (twisted)	fence staple	garter clip fragment	wire	flat metal fragment	bucket or pan handle	rivet head	fence staple	wire	wire
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE		FALSE	
37 3	38 1	38 2	6	6	6	6	10	10	=	=	12	13	13	13	ÞÌ	н	-	-	_	1	1	M	M	z	0	۵.
5	ς.	5	~	5	8	5	5	5	5	5	5	5	5	5	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface	surface
5LA2316.100.595	5LA2316.100.602	5LA2316.100.623	5LA2316.100.881	5LA2316.100.882	5LA2316.100.884	SLA2316.100.894	5LA2316.100.898	5LA2316.100.901	5LA2316.100.921	5LA2316.100.923	5LA2316.100.929	5LA2316.100.939	SLA2316.100.941	SLA2316.100.945	5LA2316.100.947	SLA2316.100.953	SLA2316.100.957	5LA2316.100.958	SLA2316.100.959	5LA2316.100.973	5LA2316.100.974	5LA2316.100.981	5LA2316.100.982	5LA2316.100.988	SLA2316.100.992	SLA2316 100 996
37-41	38-05	38-19	F5-82	F5-83	F5-85	F5-95	F5-97	F5-100	F5-116	F5-118	F5-123	F5-133	F5-135	F5-159	SCLE- 01	SCLH- 02	SCLJ- 01	SCLJ-	SCLJ-	SCLL-	SCLL- 02	SCLM-	SCLM- 02	SCLN- 01	SCLO-	SCLP-
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	51.A2316

==	7.6	34.8	3.8	0.3	2.1	9.0	9.0	1.3	4.7	5.0	0.1	5.6	4.5	8.2	9.0	1.0	18.4	4.8	9.6	4.2	6'0	28.6	37.7	5.8	9.98	40.4	35.6	200	too heavy for scale	28.6	59.7	16.7
17	2	_	2	-	5	-	4	-	-	-	_	_	_	_	_	_	4	-	4	2	-	2	2	_	50	_	00	\$	-	-	3	V
flat metal fragments	fence staples	metal ring	metal fragments	tack	metal fragments	wire fragment	metal fragments	metal fragments	fence staple	fence staple	metal fragment	metal buckle	fence staple	metal buckle	copper washer	metal bucket disc	fence staples	fence staple	wire fragments	brass rivet	brass metal strip	wire fragment	flatware, knife fragments	fence staple	metal fragments	metal buckle	wire	large springs (bed or car?)	large metal wire (part of bed springs?)	metal buckle	metal trim (frame?)	
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	200
-	4	_	_	-	_	-1	-	2	2	2	3	1	-	1	-	-	-	2	4	4	4	5	5	9	7	7	7	7	7	∞	00	
39	39	39	39	39	39	39	39	39	39	39	39	40	41	41	41	42	43	43														
4	4	4	4	4	4	4	4	4	4	4	4	7	5	5	5	3			5	5	5	2	5	5	5	5	5	5	5	2	5	
5LA2316.100.653	5LA2316.100.654	5LA2316.100.656	5LA2316.100.678	5LA2316.100.685	5LA2316.100.685	5LA2316,100.686	5LA2316.100.692	5LA2316.100.697	5LA2316.100.698	5LA2316.100.709	5LA2316.100.712	5LA2316.100.719	5LA2316.100.728	5LA2316.100.729	5LA2316.100.731	5LA2316.100.775	5LA2316.100.786	5LA2316.100.787	5LA2316.100.795	5LA2316.100.796	5LA2316.100.798	5LA2316.100.811	5LA2316.100.812	5LA2316.100.833	5LA2316.100.844	5LA2316.100.845	5LA2316.100.848	5LA2316.100.867	5LA2316.100.868	5LA2316.100.871	5LA2316.100.873	
39-03	39-04	39-06	39-48	39-55	39-56	39-57	39-63	39-29	39-30	39-62	39-44	40-03	41-09	41-10	41-12	42-20	RL-01	RL-02	F5-08	F5-09	F5-11	F5-23	F5-24	F5-40	F5-50	F5-51	F5-54	F5-68	F5-69	F5-72	F5-74	
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	

35.1	141.5
25	44
metal fragments	metal wire from springs
FALSE	FALSE
∞	6
5	5
SLA2316.100.876	5LA2316.100.880
F5-77	F5-81

Class	indeterminate	consumption	furniture	tack	indeterminate	preparation	storage	furmiture	tack	tool	storage	indeterminate	indeterminate	clothing	indeterminate	storage	indeterminate	tack	indeterminate	storage	storage	furniture	furniture	preparation
Category	indeterminate	subsistence	domestic	livestock	indeterminate	subsistence	subsistence	domestic	livestock	hardware	subsistence	indeterminate	indeterminate	personal	indeterminate	subsistence	indeterminate	livestock	indeterminate	subsistence	subsistence	domestic	domestic	subsistence
Late Date																								
Early Date																								
Comments	possible a stove part?	a smaller spoon possibly used for deserts				not collected	raised circle lip, and five holes (one at each corner and one in the center)	mostly flat, two parallel holes at the end, two hole staggered		two small rivets with a small hole at the end	not collected	"H" on one side of fragment		possible a bottle top?	not collected	not collected	not collected; related to D-123	not collected	not collected					
Decoration		dots speckled along sides																						
Diameter			2.4 cm (wheel)																					
Cat #																								
Prev #	D-147	D-160	D-082	D-156	D-100	D-136	D-153	D-139	D-155	D-126	D-091	D-087	D-084	D-061	D-036	D-077	D-116	D-118	D-137	D-125	D-128	D-129	D-130	D-131

tack	nate indeterminate	nate indeterminate	furniture	furniture	fencing	ate indeterminate	fencing	fencing	nate indeterminate	nate indeterminate	fencing	nate indeterminate	fencing	nate indeterminate	ate indeterminate	ate indeterminate	nate indeterminate		clothing	clothing	indeterminate	nate indeterminate	fencing	nate indeterminate		fencing	clothing	nate indeterminate	fencing	fencing	nate indeterminate	rate indeterminate
livestock	indeterminate	indeterminate	domestic	domestic	livestock	indeterminate	livestock	livestock	indeterminate	indeterminate	livestock	indeterminate	livestock	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	personal	personal	hardware	indeterminate	livestock	indeterminate	indeterminate	livestock	personal	indeterminate	livestock	livestock	indeterminate	indeterminate
							1886	1886																								
metal buckle for overalls	five rivets along the length of the strap			not collected; related to D-129	fence? .25 screen size	.125	round single strand wire with 2 point barb	twisted, round single strand wire, with 2 point barb			fence		twisted	looks like large wire nail with two heads												fence?					.25	125
		2.5mm																	1.7	1.7												
					SLA2316.100.003	5LA2316.100.005	5LA2316.100.008	SLA2316.100.009	5LA2316.100.024	5LA2316.100.029	SLA2316.100.050	5LA2316.100.054	5LA2316.100.059	SLA2316.100.070	SLA2316.100.074	5LA2316.100.075	5LA2316.100.080	5LA2316.100.081	5LA2316.100.093	5LA2316.100.094	5LA2316.100.095	5LA2316.100.100	SLA2316.100.103	5LA2316.100.111	5LA2316.100.121	5LA2316.100.133	5LA2316.100.134	5LA2316.100.132	5LA2316.100.138	5LA2316.100.139	5LA2316.100.140	SI A2316 100 141
D-024	D-053	D-033	D-135	D-123	01-11	01-13	01-02	01-06	04-01	05-05	06-19	06-23	07-05	07-16	07-20	07-21	07-26	07-27	08-12	09-01	09-05	09-01	01-60	81-60	11-06	11-18	11-19	11-17	11-23	11-24	11-42	11-42

indeterminate	indeterminate	indeterminate	indeterminate	fencing	indeterminate	fencing	indeterminate	indeterminate	fencing	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	fencing	fencing	indeterminate	indeterminate	horse tack or clothing	indeterminate	indeterminate	fencing	fencing	fencing	indeterminate	indeterminate	indeterminate	tools	tools	tools
indeterminate	indeterminate	indeterminate	indeterminate	livestock	indeterminate	livestock	indeterminate	indeterminate	livestock	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	livestock	architecture	indeterminate	indeterminate	transportation or personal	indeterminate	indeterminate	livestock	livestock	livestock	indeterminate	indeterminate	indeterminate	hardware	hardware	hardware
																								1886						
.125	.0625	WR			enamelware fragments?		screen size not on bag	.125	.25	.0625						flat and then tapers and becomes cylindrical, has a nail or bold on flat end	.0625							twisted and bent, single strand with two point hanging barb				possibly roofing nails		cut? Roofing?
SLA2316.100.149	SLA2316.100.150	SLA2316.100.151	SLA2316.100.153	SLA2316.100.155	SLA2316.100.158	SLA2316.100.159	SLA2316.100.160	SLA2316.100.162	SLA2316.100.164	SLA2316.100.165	5LA2316.100.166	SLA2316.100.169	SLA2316.100.184	SLA2316.100.185	SLA2316.100.190	SLA2316.100.191	5LA2316.100.198	SLA2316.100.199	SLA2316.100.207	SLA2316.100.209	SLA2316.100.215	SLA2316.100.208	5LA2316.100.082	5LA2316.100.022	5LA2316.100.220	5LA2316.100.221	5LA2316.100.223	5LA2316.100.034	SLA2316.100.375	5LA2316.100.049
11-44	11-45	11-46	11-25	11-27	11-38	11-39	1148	11-50	11-52	11-53	11-36	11-39	12-09	12-10	12-15	12-16	12-31	12-21	14-01	14-03	22-01	14-02	08-01	03-03	12-32	12-32	13-02	06-03	34A-06	81-90

07-01	SLA2316.100.055	roofing?	hardware	5	tools
90-20	5LA2316.100.060	roofing?	hardware	Je	tools
01-10	SLA2316.100.064	lot B in paper work? Roofing?	hardware	re	tools
07-14	5LA2316.100.068	Lot C in paperwork	hardware	e e	tools
11-50	5LA2316.100.162	.125	indeterminate	minate	indeterminate
80-80	5LA2316.100.089		hardware	J.	tools
11-19	SLA2316.100.134		personal	-	clothing
25-01	SLA2316.100.224	Maybe Glidden's Barb-Cactus point Variation, Variation patent 157124 (original patent date November 24, 1874)	1874 livestock	*	fencing
30-01	5LA2316.100.225		indeterminate	minate	indeterminate
31-01	5LA2316.100.226		livestock	×	fencing
33-01	5LA2316.100.228		indeterminate	minate	indeterminate
11-42	5LA2316.100.140	.25	indeterminate	minate	indeterminate
35-13	5LA2316.100.446		livestock	*	fencing
35-15	SLA2316.100.448	outside diameter 5cm, inside 4cm	indeterminate	minate	indeterminate
35-16	5LA2316.100.449	has a pinched rim around edge of most fragments	indeterminate	minate	indeterminate
35-19	5LA2316.100.451	outside diameter 1", inside 1/2"	hardware	J.	indeterminate
35-23	SLA2316.100.463	2"	hardware	5	tools
35-24	5LA2316.100.464	3"	hardware	e.	tools
35-26	5LA2316.100.466		livestock	×	fencing
35-27	SLA2316.100.467		indeterminate	minate	indeterminate
35-69	5LA2316.100.472		indeterminate	minate	indeterminate
35-66	SLA2316.100.474		indeterminate	minate	indeterminate
33-02	SLA2316.100.229	flat metal that is folded	indeterminate	minate	indeterminate
33-46	SLA2316.100.243		livestock	×	fencing
34A-40	5LA2316.100.384		livestock	×	fencing
34A-41	SLA2316.100.385		indeterminate	minate	indeterminate
34A-14	5LA2316.100.392		livestock	×	fencing
39-22	SLA2316.100.671		hardware	J.	tools
D-001	SLA2316.101.024		subsistence	suce	consumption
33-54	SLA2316.100.251		livestock	×	fencing
33-59	5LA2316.100.256		livestock	×	fencing
32-25	ST A 2216 100 274		Access.	-	Comming

indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	fencing	fencing	fencing	indeterminate	indeterminate	indeterminate	fencing	indeterminate	indeterminate	indeterminate	indeterminate	tools													
hardware	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	hardware	livestock	livestock	livestock	indeterminate	hardware	indeterminate	livestock	indeterminate	hardware	indeterminate	livestock	hardware													
	can fragments? One or two pieces look crimped	L-shaped, embossing "EX16", three prongs, 2 skinny and 1 wide one with a hole												can fragments?	chrome plated?								still has blue and white enamel							has square shoe nails	
5LA2316.100.276	5LA2316.100.277	5LA2316.100.278	SLA2316.100.282	SLA2316.100.291	5LA2316.100.302	5LA2316.100.306	5LA2316.100.311	5LA2316.100.312	5LA2316.100.312.1	SLA2316.100.317	5LA2316.100.322	5LA2316.100.325	5LA2316.100.326	5LA2316.100.334	5LA2316.100.339	SLA2316.100.343	SLA2316.100.345	5LA2316.100.353	5LA2316.100.397	5LA2316.100.399	5LA2316.100.400	5LA2316.100.422	5LA2316.100.423	5LA2316.100.424	5LA2316.100.430	5LA2316.100.434	5LA2316.100.439	5LA2316.100.483	5LA2316.100.484	5LA2316.100.485	5LA2316.100.486
33-27	33-28	33-29	33-33	34-04	34-15	34-19	34-24	34-25	34-25	34-54	34-59	34-62	34-63	33-35	34-39	34-69	34-71	34-43	34A-19	34A-21	34A-22	34A-31	34A-32	34A-33	34A-61	35-01	35-06	35-57	35-58	35-40	35-41

indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	fencing	tools	indeterminate	indeterminate	tools	indeterminate	tools	indeterminate	fencing	fencing	indeterminate	indeterminate	indeterminate	fencing	fencing	tools	tools	indeterminate	indeterminate	indeterminate	tools	fencing	indeterminate	fencing	indeterminate	indeterminate
Indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	livestock	hardware	indeterminate	hardware	hardware	indeterminate	hardware	hardware	livestock	livestock	indeterminate	indeterminate	indeterminate	livestock	livestock	hardware	hardware	indeterminate	indeterminate	indeterminate	hardware	livestock	indeterminate	livestock	indeterminate	indeterminate
has punctured hole																	can fragments?		1 1/4 in long									lin long		
SLA2316.100.493	5LA2316.100.494	5LA2316.100.496	SLA2316.100.499	5LA2316,100,508	SLA2316.100.511	SLA2316.100.512	SLA2316.100.513	5LA2316.100.514	5LA2316.100.519	5LA2316.100.522	5LA2316.100.524	5LA2316.100.530	5LA2316.100.532	5LA2316.100.534	5LA2316.100.537	5LA2316.100.538	5LA2316.100.541	5LA2316.100.542	5LA2316.100.543	5LA2316.100.547	5LA2316.100.548	5LA2316.100.551	SLA2316.100.557	5LA2316.100.567	5LA2316.100.569	5LA2316.100.572	5LA2316.100.583	5LA2316.100.586	5LA2316.100.595	51 A 2 3 1 6 100 602

fencing	late indeterminate	tools	indeterminate	furniture	late indeterminate	fencing	tools	ate indeterminate	ate indeterminate	indeterminate	ate indeterminate	nate indeterminate	fencing	indeterminate	fencing	fencing	clothing	fencing	nate indeterminate	tools	indeterminate	fencing	fencing	fencing	tools	nate indeterminate
livestock	indeterminate	hardware	hardware	domestic	indeterminate	livestock	hardware	indeterminate	indeterminate	hardware	indeterminate	indeterminate	livestock	hardware	livestock	livestock	personal	livestock	indeterminate	hardware	hardware	livestock	livestock	livestock	hardware	indeterminate
				springs in lot 7																						
	mostly flat, heavily corroded			weight per spring, same dimensions as springs in lot 7		from the springs						1/8 screen		**************************************		1.			can?			1.				
				^		J								4		1			3			_				
5LA2316.100.623	5LA2316.100.881	5LA2316.100.882	5LA2316.100.884	5LA2316,100,894	5LA2316.100.898	5LA2316,100,901	5LA2316.100.921	5LA2316.100.923	5LA2316.100.929	5LA2316.100.939	5LA2316.100.941	5LA2316.100.945	SLA2316.100.947	SLA2316.100.953	SLA2316.100.957	5LA2316.100.958	SLA2316.100.959	SLA2316.100.973	SLA2316.100.974	5LA2316.100.981	5LA2316.100.982	5LA2316.100.988	SLA2316.100.992	SLA2316.100.996	5LA2316.100.643	5LA2316.100.653
38-19	F5-82	F5-83	F5-85	F5-95	F5-97	F5-100	F5-116	F5-118	F5-123	F5-133	F5-135	F5-159	SCLE- 01	SCLH- 02	SCLJ-	SCLJ-	SCLJ-	SCLL- 01	SCLL- 02	SCLM- 01	SCLM- 02	SCLN- 01	SCLO- 01	SCLP- 01	38-36	39-03

SLA2316.100.636		indeterminate	Indeterminate
5LA2316.100.678		indeterminate	indeterminate
5LA2316.100.685		hardware	tools
5LA2316.100.685		indeterminate	indeterminate
5LA2316.100.686		livestock	fencing
SLA2316.100.692		indeterminate	indeterminate
5LA2316.100.697		indeterminate	indeterminate
5LA2316.100.698	1 1/2 in long	livestock	fencing
5LA2316.100.709		livestock	fencing
5LA2316.100.712		indeterminate	indeterminate
5LA2316.100.719		livestock	indeterminate
5LA2316.100.728		livestock	fencing
5LA2316.100.729		livestock	indeterminate
5LA2316.100.731		hardware	indeterminate
5LA2316.100.775		hardware	tools
5LA2316.100,786		livestock	fencing
5LA2316.100.787	*	livestock	fencing
5LA2316.100.795		livestock	fencing
5LA2316.100.796		hardware	indeterminate
5LA2316.100.798		indeterminate	indeterminate
5LA2316.100.811		livestock	fencing
5LA2316.100.812	2 pc wooden handle attached to ferrous knife blade	subsistence	consumption
5LA2316.100.833	*—	livestock	fencing
5LA2316.100.844	misc pieces	indeterminate	indeterminate
5LA2316.100.845	tack?	livestock	indeterminate
5LA2316.100.848		livestock	fencing
5LA2316.100.867	weight per spring, 5" end diameter, 2" center diameter, 12"tall	domestic	furniture
SLA2316.100.868	wire is wrapped significantly at one end	· livestock	fencing
5LA2316.100.871		livestock	indeterminate
5LA2316.100.873	white knob type thing on one piece	indeterminate	indeterminate
5LA2316.100.874	part of springs	livestock	fencing
5LA2316.100.876		indeterminate	indeterminate
ST A 2316 100 880		livestock	fencing

0	
乭	
62	
7	

Site #	Prev #	Cat #	Feature	Unit	Lot	Elevation	H20	Type	Quantity	Portion	Weight	Length
5LA2316	SCLT-02	5LA2316.101.018	surface		⊢		FALSE	wire	-		2.1	
5LA2316	SCLK-01	5LA2316,100,964	surface		×		FALSE	wire	_		4.0	2 1/2
5LA2316	SCLH-03	5LA2316.100.954	surface		н		FALSE	wire	6		7.6	2 1/4
5LA2316	SCLH-01	5LA2316.100.952	surface		Ξ		FALSE	wire	_		62.8	
5LA2316	SCLG-02	5LA2316.100.950	surface		G		FALSE	wire	_		4.1	2 3/4
5LA2316	SCLG-01	5LA2316.100.949	surface		Ð		FALSE	wire	_		9.1	3 3/4
5LA2316	SCLS-01	5LA2316.101.011	surface		S		FALSE	wire	_		3.0	
5LA2316	SCLR-01	5LA2316.101.006	surface		×		FALSE	wire	_		4.2	2 1/2
5LA2316	SCLR-02	5LA2316.101.007	surface		~		FALSE	wire	_		3.1	1 1/2
5LA2316	SCLS-02	SLA2316.101.012	surface		S		FALSE	wire	2		2.2	1 3/4
5LA2316	SCLQ-01	5LA2316.101.001	surface		0		FALSE	wire	_		4.6	2 1/2
5LA2316	SCLT-01	5LA2316.101.017	surface		Ь		FALSE	wire	_		9.4	3 3/4
5LA2316	SCLS-03	5LA2316.101.013	surface		S		FALSE		_		0.3	11/2
5LA2316	06-20	5LA2316.100,051	00	9	10	1002.082	FALSE	cut?	_	incomplete shank	0.5	3/4
5LA2316	07-01	5LA2316.100.055	∞	7	2	1002.336	FALSE	tack	_	complete	1.8	_
5LA2316	06-18	5LA2316.100.049	∞	9	6	1002.172	FALSE	tack	_	incomplete	8.0	3/4
5LA2316	07-11	5LA2316.100.065	00	7	5	1002.396	FALSE	wire	_	complete	4.5	2 1/2
5LA2316	06-07	5LA2316.100.038	00	9	4	1002.192	FALSE	cut	2	heads	1.1	
5LA2316	90-90	5LA2316.100.037	00	9	4	1002.192	FALSE	wire	_	complete	4.8	2 3/4
5LA2316	90-90	5LA2316.100,036	00	9	5	1002.192	FALSE	cut	_	complete	6.1	2
5LA2316	06-03	5LA2316.100,034	00	9	3	1002.272	FALSE	tack	2	complete	3.5	_
5LA2316	05-02	5LA2316.100,026	00	5	_	1002.446	FALSE	wire	_	complete	2.6	1 1/4
5LA2316	06-17	5LA2316.100,048	00	9	6	1002.172	FALSE	wire	_	complete	4.7	2 1/2
5LA2316	07-14	5LA2316.100,068	∞	7	9	1002.286	FALSE	tack	_	complete	1.8	_
5LA2316	07-25	5LA2316.100.079	00	7	7	1002.176	FALSE	wire	_	complete	3,3	2 1/2
5LA2316	07-17	5LA2316.100.071	00	7	9	1002.286	FALSE	wire	1	complete	4.4	2 1/2

4	2	2	-	3 1/2	3 1/2	-	3 3/4		2	2 3/4	1 1/4	2 1/2	1 1/4		3 1/2	1 3/4	2 1/2	2 1/4	2 1/2	3	2 1/2	7			2 1/2	3 1/2			2 1/2
15.8	1.7	2.1	5.3	11.1	10	4.0	13.9	3.2	2.6	6.2	6.0	4.8	6.0	3.5	9.5	1.5	5.0	6.2	5.9	4.4	4.5	3.2	2.2	1.6	16.3	19.2	22.8	29.1	4.0
complete			complete	complete	complete	complete	complete	shanks	complete																				
-	-	-	3	_	_	2	-	-	-	1	_	-	-	2	_	-	-	-	-	-	-	-	3	-	3	2	3	en.	-
wire	cnt	wire	tack	wire	wire	tacks	wire	cnt	wire	wire	wire	cnt	wire																
FALSE	TRUE	FALSE	TRUE	FALSE																									
1002.172	1002.286	1002.396	1002.396	1002.506	1002.236	1002.236			1000.869	1000.719	1000.629	1000.856	1000.856	1000.856	1000.819	1000.819	1000.839	1000.839	100.719	1000.839	1000.856	1000.629							
6	9	5	5	4	3	3	-	-	1	9	3	4	4	4	2	2	5	5	3	5	-	3	7	2	2	2	2	-	61
9	7	7	7	7	7	7	40	40	-	-	7	2	2	2	-	-	-	-	-	-	2	2	38	38	38	38	38	38	37
∞	∞	∞	œ	∞	∞	∞	7	7	9	9	9	9	9	9	9	9	9	9	9	9	9	9	5	5	5	5	5	\$	5
SLA2316.100.047	5LA2316.100.069	5LA2316.100.066	5LA2316.100.064	5LA2316.100.062	5LA2316.100.061	5LA2316.100.060	5LA2316.100.717	5LA2316.100.718	SLA2316.100.216	5LA2316.100.013	5LA2316.100.016	5LA2316.100.017	5LA2316.100.018	5LA2316.100.019	5LA2316.100.007	5LA2316.100.006	5LA2316.100.012	5LA2316.100.011	5LA2316.100.010	5LA2316.100.217	5LA2316.100.014	5LA2316.100.015	5LA2316.100.621	5LA2316.100.620	5LA2316.100.619	5LA2316.100.618	5LA2316.100.617	5LA2316.100.603	SLA2316 100 597
91-90	07-15	07-12	01-10	80-70	07-07	90-20	40-01	40-02	01-14	01-09	02-03	02-04	02-05	05-06	01-03	01-04	01-07	01-08	01-05	01-15	02-01	02-03	38-16	38-15	38-14	38-13	38-12	38-06	17-43
5LA2316	SLA2316	5LA2316	SLA2316	5LA2316	SLA2316	SI A2316																							

1 1/2		2 1/2	C1	2		_	2 1/2		-		2 1/2	2			_	2	2 1/2	3 1/4	2		3		21/2	3 3/4			31/2
1.9	0.8	4.7	2.4	3.1	0.9	5.2	7.1	6.2	1.1	3.4	6.4	18.3	1.8	2.2	7.7	5.7	6.65	86.5	4.7	3.2	35.5	2.1	58.7	16.5	15.6	0.8	38.8
2	_	_	_	_	3	3	_	2	_	2	_	5	3	6	00	2	12	01	_	_	4	_	00	_	_	5	3
wire		wire	wire	wire		wire	wire		wire	wire	wire	wire			wire	wire	wire	wire	wire		wire	wire	wire		wire		wire
FALSE	FALSE																										
2	2	-	-	2	9	9	9	5	5	2	5	7	4	2	4	4	4	4	5	6	12	11	11	11	10	01	7
38	37	37	38	37						41				38													
5	5	5	5	5	5	5	5	5	5	5	~	>	5	5	>	S	S	5	5	5	5	5	5	5	٧	ν,	ς,
5LA2316.100.621	5LA2316.100.578	5LA2316.100.570	5LA2316,100,599	5LA2316.100.579	5LA2316.100.835	5LA2316.100.834	5LA2316.100.832	5LA2316,100.818	5LA2316.100.817	5LA2316.100.749	5LA2316.100.815	5LA2316.100.849	5LA2316.100.794	5LA2316.100.622	5LA2316.100.791	5LA2316.100.790	5LA2316.100.789	5LA2316.100,788	5LA2316.100.816	5LA2316.100.887	5LA2316.100.927	5LA2316.100.922	5LA2316.100.920	5LA2316.100.919	5LA2316.100.913	5LA2316.100.902	5LA2316.100.846
38-17	37-17	37-16	38-02	37-18	F5-42	F5-41	F5-39	F5-30	F5-29	41-26	F5-27	F5-55	F5-07	38-18	F5-04	F5-03	F5-02	F5-01	F5-28	F5-88	F5-121	F5-117	F5-115	F5-114	F5-151	F5-101 and F5-102	F5-52
5LA2316	5LA2316																										

3 1/4	2 1/2	2 1/2	4 1/4	3 1/2	-			2 1/4		2112	23/4		2	_			3 1/4		31/2	3 1/4			2 1/2	-	-	1 1/4	2	2 1/4	3 1/2
40.8	49.0	26.1	53.2	12.6	6.0	4.9	2.5	8.68	=	9.4	6.2	10.7	80.	2.4	0.7	0.7	26.4	0.4	20.5	10.7	14.8	1.5	4.7	2.0	9.0	2.2	5.9	4.1	7.9
3	8	5	4	_	-	3	-	13		2	_	-	2	2	-	-	3	_	2	-	3	-	-	-	-	-	2	-	_
wire	wire	wire	wire	wire	wire			wire		wire	wire	wire		wire		wire	wire			Wire									
FALSE																													
10	7	6	6	∞	7	7	4	10			2	3	3	E	3	3	-	-	-	\$	-	2		-	-	-	-	ы	-
									41	41	38	38	38	38	38	38	41	4	14		39	39	39	39	39	39	39	39	39
5	2	2	2	5	5	5	5	5	5	2	8	5	5	5	5	5	2	5	5	5	4	4	4	4	4	4	4	4	4
5LA2316.100.899	5LA2316.100.847	5LA2316.100.886	5LA2316.100.885	5LA2316.100.875	5LA2316.100.851	5LA2316.100.850	5LA2316.100.792	5LA2316.100.900	5LA2316.100.726	5LA2316.100.725	5LA2316.100.636	5LA2316,100.639	5LA2316.100.640	5LA2316.100.641	5LA2316.100.642	5LA2316,100.649	5LA2316.100.724	SLA2316.100.727	5LA2316.100.724	5LA2316.100.814	5LA2316.100.658	5LA2316.100.698	SLA2316.100.677	5LA2316.100.662	5LA2316.100.661	5LA2316.100.660	5LA2316.100.658	5LA2316.100.714	SLA2316.100.657
F5-98	F5-53	F5-87	F5-86	F5-76	F5-57	F5-56	F5-05	F5-99	41-07	41-06	38-49	38-32	38-33	38-34	38-35	38-49	41-05	41-08	41-04	F5-26	39-08	39-31	39-47	39-13	39-12	39-11	39-09	39-46	39-07
5LA2316	SLA2316																												

5LA2316	39-10	51.A2316,100.659	4	39	_	FALSE	Wire	_	1.2	1 3/4
5LA2316	36-10	5LA2316.100.510	4	36	0	FALSE	wire	2	7.0	7
5LA2316	36-09	5LA2316.100.509	4	36	0	FALSE	wire	1	17.6	4 1/2
5LA2316	36-46	5LA2316.100.552	4	36	3	FALSE	wire	2	5,4	2 1/4
5LA2316	36-16	5LA2316,100,516	4	36	-	FALSE		1	0,2	
5LA2316	36-26	5LA2316.100.526	4	36	1	FALSE	wire	9	14.5	2
5LA2316	36-27	5LA2316,100.527	4	36	_	FALSE	wire	4	3.8	1 1/4
5LA2316	36-28	5LA2316.100.528	4	36	_	FALSE	wire	10	50.1	2 1/2
5LA2316	36-31	5LA2316.100.531	4	36	_	FALSE		_	3.5	1 3/4
5LA2316	36-49	5LA2316.100.533	4	36	_	FALSE	wire	-	=======================================	
5LA2316	36-43	5LA2316.100.549	4	36	2	FALSE	wire	_	9'0	
5LA2316	36-44	5LA2316.100.550	4	36	2	FALSE	wire	3	9.1	2
5LA2316	36-45	5LA2316.100.551	4	36	2	FALSE	wire	3	14.0	2 1/2
SLA2316	36-29	SLA2316.100.529	4	36	-	FALSE	wire	3	22.6	4
5LA2316	35-45	5LA2316.100.490	3/4	35	S	FALSE	wire	-	4.2	
5LA2316	35-02	5LA2316.100.435	3/4	35	-	FALSE	wire	_	3.2	
5LA2316	35-11	5LA2316.100.444	3/4	35	1	FALSE	wire	∞	34.8	11/2
	35-12	5LA2316.100.445	3/4	35	1	FALSE	wire	4	33.4	3 1/2"
5LA2316	35-14	SLA2316.100,447	3/4	35	1	FALSE	wire	1	0.8	-
5LA2316	35-14	SLA2316.100.447.1	3/4	35	-	FALSE		2	1.2	
5LA2316	35-49	5LA2316.100.455	3/4	35	_	FALSE	wire	1	9.3	3 1/2
5LA2316	35-48	5LA2316.100.500	3/4	35	wall cleanup	FALSE	wire	_	6.6	3 1/2
5LA2316	35-30	5LA2316.100.469	3/4	35	2	FALSE	wire	_	2.3	
5LA2316	35-25	5LA2316.100.465	3/4	35	2	FALSE	wire	_	4.2	2 1/2
5LA2316	34-03	5LA2316.100.290	3	34	0	FALSE	wire	_	10.3	
5LA2316	34-21	5LA2316.100.308	3	34	1	FALSE	wire	_	3.1	
5LA2316	33-35	5LA2316.100.283	3	33	2	FALSE	wire	_	1.3	
5LA2316	34A-17	5LA2316.100.395	3	34A	2	FALSE	wire	3	2.5	
5LA2316	33-55	5LA2316.100.252	3	33	0	FALSE	wire	_	6.0	

									1 1/4										4	2172	2	1 1/4		-		2/8			2	2 1/2	2
2.9	18.3	6.1	3.3	2.7	2.6	1.0	1.5	8.0	6.0	6.3	14.3	1.8	1.3	1.9	9.3	8.6	7.6	6.9	15.6	5.1	6.3	6.0	2.7	9.0	29.9	0.5	3.2	6.0	2.8	4.1	0.9
																												head	complete	complete	complete
_	4	-	-	2	3	2	-	-	_	2	3	-	2	2	5	2	2	2	-	-	2	-	2	-	9	-	-	-	-	-	2
wire	wire	wire	wire	wire	wire			wire	wire	wire	wire	wire		wire	wire	wire	wire	wire	wire	wire	wire	wire		wire							
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE										
																												1000.131	1000.201	1000.131	1000 131
0	-	_	-	_	-	-	-	3	-	_	0	_	_	_	_	-	2	2	-	-	-	-	_	_	-	-	0	2	-	2	2
33	33	33	33	33	33	33	33	33	34A	34	33	34	34	34	34	34	34	34A	42	42	42	42	42	42	34	34A	34A	∞	19	6	6
en	60	٣	6	ы	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	8	3	2	2	2	7
5LA2316.100.253	5LA2316.100.267	5LA2316.100.268	5LA2316.100.269	5LA2316.100.270	5LA2316.100.271	5LA2316.100.272	5LA2316.100.273	5LA2316.100.285	5LA2316.100.381	5LA2316.100.307.1	5LA2316.100.242	5LA2316.100.309	5LA2316.100.309.1	5LA2316.100.309.2	5LA2316.100.310	5LA2316.100.316	5LA2316.100.330	5LA2316.100.396	5LA2316.100.763	5LA2316.100.765	5LA2316.100.764	5LA2316.100.766	5LA2316.100.767	5LA2316.100.781	5LA2316.100.307	5LA2316.100.388	5LA2316.100.370	5LA2316.100.110	5LA2316.100.115	5LA2316.100.109	\$LA2316 100 108
33-56	33-18	33-19	33-20	33-21	33-22	33-23	33-24	33-37	34A-37	34-20	33-45	34-22	34-22	34-22	34-23	34-53	34-21	34A-18	42-07	42-08	42-09	41-10	42-11	42-26	34-20	34A-44	34A-01	09-17	10-04	91-60	09-15
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SI A2316										

4	7	_		4	1 1/4		2"	1 1/2	-	2	-	1 1/2	2 1/4	-		2 1/4	1 1/4	1 3/4?	3	2		2	1 1/4	2 1/2	2		2 1/4
1	3.5	1.4	1.9	14.9	9.0	3.0	3.0	0.8	0.4	3.1	2.7	2.4	3.4	1.2	10.2	3.0	1.2	1.3	11.9	2.9	7.5	3.6	0.8	5.0	3.3	5.3	3.1
Complete	complete	complete	head	complete	complete		complete	complete	complete	complete	shank	shank	complete	shank	complete	complete	complete	incomplete	complete	complete	incomplete	complete	complete	complete	complete		complete
-	(1	_	_	_	-	-	_	_	-	_	-	-	-	_	-	_	-	-	2	-	7	-	-	_	_	-	-
MIC	wire	tack	wire	c.	wire																						
A LANGE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	TRUE	FALSE	TRUE																
167,0001	1000.201	1000,201	1000.201	1000.201	1000.251		1000,251	569 666	02.666	999,833	999.833	999,833	999,833	999.358	999.803	999.833	665 262	999.803	999.825	999.825	999.825	999.825	999.803	1000.707	1000.457		1000.969
-	4	4	4	_	-	2	2	3	2	0	_	-	-	7	7	_	5	2	-	_	-	-	2	5	10	0	-
,	00	00	œ	œ	6	6	6	=	12	12	12	12	12	=	=	12	=	=	=	=	=	=	-	3	3	32	12
4	2	2	2	7	2	2	2	14	_	_	_	_	-	_	-	-	-	-	-	-	_	-	-				
21.02.101.102	5LA2316.100.091	5LA2316.100.089	5LA2316.100.088	5LA2316.100.083	5LA2316.100.101	5LA2316.100.362	5LA2316.100.362	5LA2316.100.146	5LA2316.100.192	5LA2316.100.176	5LA2316.100.186	5LA2316.100.187	5LA2316.100.189	5LA2316.100.168	5LA2316.100.135	5LA2316.100.188	5LA2316.100.163	5LA2316.100.136	5LA2316.100.125	5LA2316.100.123	5LA2316.100.122	5LA2316.100.120	5LA2316.100.137	5LA2316.100.021	5LA2316.100.023	5LA2316.100.227	5LA2316.100.222
60-60	08-10	80-80	08-07	08-02	80-60	61-60	61-60	11-33	12-17	12-01	12-11	12-12	12-14	11-38	11-20	12-13	11-51	11-21	11-10	11-08	11-07	11-05	11-22	03-02	03-04	32-01	13-01
SLA2316	5LA2316																										

Prev #	Cat #	Pennyweight	Description	Comments	Early date	Late date	Category	Class
SCLT-02	5LA2316.101.018	9	common	2"	1890	present	hardware	nails
SCLK-01	5LA2316.100.964	. 9	common	2 1/2"	1890	present	hardware	nails
SCLH-03	5LA2316.100.954	9	common	2 1/4"	1890	present	hardware	nails
SCLH-01	SLA2316.100.952		milled wood with wire nail		1890	present	hardware	nails
SCLG-02	5LA2316.100.950	9	common	2 3/4'	1890	present	hardware	nails
SCLG-01	5LA2316.100.949		large wire nail	3 3/4"	1890	present	hardware	nails
SCLS-01	5LA2316.101.011		wire nail	2 1/2"	1890	present	hardware	nails
SCLR-01	5LA2316.101.006	9	соттоп	2 1/2"	1890	present	hardware	nails
SCLR-02	5LA2316,101,007	9	common	1 1/2	1890	present	hardware	nails
SCLS-02	5LA2316.101.012	5	common	1 3/4	1890	present	hardware	nails
SCLQ-01	SLA2316.101.001	9	common	2 1/2"	1890	present	hardware	nails
SCLT-01	SLA2316.101.017		large wire nail	3 3/4"	1890	present	hardware	nails
SCLS-03	5LA2316.101.013	9	common	1 1/2"			hardware	nails
06-20	5LA2316.100.051						hardware	nails
07-01	SLA2316.100.055	2	roofing				hardware	nails
81-90	5LA2316.100.049		roofing				hardware	nails
07-11	5LA2316.100.065	9	common		1890	present	hardware	nails
20-90	5LA2316.100.038				1830	1902	hardware	nails
90-90	5LA2316.100.037	9	common		1890	present	hardware	nails
90-90	5LA2316.100.036	9	common	heavy corrosion	1830	1902	hardware	nails
06-03	5LA2316.100.034	2	roofing				hardware	nails
05-02	5LA2316.100.026	3	common		1890	present	hardware	nails
21-90	5LA2316.100.048	9	common		1890	present	hardware	nails
07-14	SLA2316.100.068	2	roofing				hardware	nails
07-25	5LA2316.100.079	9	common	bent and heavily corroded	1890	present	hardware	nails
07-17	5LA2316.100.071	9	common		1890	present	hardware	nails
06-16	SLA2316.100.047	20	framing		1890	present	hardware	nails

nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	pails						
hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware						
1902	present		present	present		present	present	present	present	present	present	present	1902	present	present	present	1902	present	present	present	present	present	present	present	present	present	present	present	nrecent
1830	1890		1890	1890		1890	1890	1890	1890	1890	1890	1890	1830	1890	1890	1890	1830	1890	1890	1890	1890	1890	1890	1890	1890	1890	1890	1890	1800
						3 3/4" long					bent	bent		bent	bent	bent	heavy corrosion	heavy corrosion		bent twice				2 1/2 in	3 1/2in	highly corroded	all bent slightly, 3	2 1/2 in long	1.0
common	common	roofing	framing	framing	roofing	very large wire nail	wire nail shank	common	common	common	common	common		framing	common	small wire nail fragments	wire nail shank	common	framing	large wire nails	large wire nails	common	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6						
9	9	2	16	16	2			9	9	3	9	3		16	5	9	9	9	10	9	9			9	16			9	7
5LA2316.100.069	5LA2316.100.066	5LA2316.100.064	5LA2316.100.062	5LA2316.100.061	5LA2316.100.060	5LA2316.100.717	5LA2316.100.718	SLA2316.100.216	SLA2316.100.013	SLA2316.100.016	SLA2316.100.017	5LA2316.100.018	5LA2316.100.019	5LA2316.100.007	SLA2316.100.006	SLA2316.100.012	5LA2316.100.011	SLA2316.100.010	5LA2316.100.217	5LA2316.100.014	5LA2316.100.015	5LA2316.100.621	5LA2316.100.620	5LA2316.100.619	5LA2316.100.618	5LA2316.100.617	5LA2316.100.603	5LA2316.100.597	162 001 2156 4 13
07-15	07-12	07-10	07-08	07-07	90-20	40-01	40-02	01-14	01-09	02-03	02-04	02-09	90-20	01-03	01-04	01-07	01-08	01-05	01-15	02-01	02-03	38-16	38-15	38-14	38-13	38-12	38-06	37-43	38-17

			small cut? Nail or tack				hardware	nails
37-16	SLA2316.100.570	9	common	2 1/2	1890	present	hardware	nails
38-02	SLA2316.100.599	9	common	2 in long	1890	present	hardware	nails
37-18	SLA2316.100.579	9	common	2 inch long	1890	present	hardware	nails
F5-42	5LA2316.100.835		nail heads				hardware	nails
F5-41	5LA2316.100.834		small wire nails	1	1890	present	hardware	nails
F5-39	5LA2316.100.832	9	common	2 1/2"	1890	present	hardware	nails
F5-30	5LA2316.100.818		nail heads				hardware	nails
F5-29	5LA2316.100.817		small wire nail	1	1890	present	hardware	nails
41-26	SLA2316.100.749		wire nail shanks	heavily corroded	1890	present	hardware	nails
F5-27	5LA2316.100.815	9	common	2 1/2"	1890	present	hardware	nails
F5-55	5LA2316.100.849	9	common	2"	1890	present	hardware	nails
F5-07	5LA2316.100.794		nail shanks				hardware	nails
38-18	SLA2316.100.622		nail fragments				hardware	nails
F5-04	SLA2316.100.791		small wire nails	1"	1890	present	hardware	nails
F5-03	SLA2316.100.790	9	common	2"	1890	present	hardware	nails
F5-02	SLA2316.100.789	9	common	2 1/2"	1890	present	hardware	nails
F5-01	SLA2316.100.788		large wire nails	3 1/4"	1890	present	hardware	nails
F5-28	SLA2316.100.816	9	common	2"	1890	present	hardware	nails
F5-88	5LA2316.100.887		nail head				hardware	nails
F5-121	5LA2316.100.927		medium wire nails	3"	1890	present	hardware	nails
F5-117	5LA2316.100.922		small wire nail		1890	present	hardware	nails
F5-115	5LA2316.100.920	9	common	2 1/2	1890	present	hardware	nails
F5-114	SLA2316.100.919		large metal nail	3 3/4			hardware	nails
F5-151	5LA2316.100.913		wire nail in wood fragment		1890	present	hardware	nails
F5-101 and F5-102	5LA2316.100.902		nail heads and shanks				hardware	nails
F5-52	5LA2316.100.846	91	framing	3 1/2"	1890	present	hardware	nails
F5-98	5LA2316.100.899		large wire nails	3 1/4"	1890	present	hardware	nails

nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails
hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware
present	present	present	present	present			present	present	present	present	present	present	present	present	present	present		present	present	present		present		present	present	present	present	present	present
1890	1890	1890	1890	0681			0681	1890	0681	1890	0681	0681	1890	1890	0681	1890		0681	0681	1890		0681		0681	1890	1890	0681	1890	1890
2 1/2 "	2 1/2"	4 1/4"	3 1/2"			heavy corrosion	2 1/4"		2 1/2"	2 3/4 in, highly corroded	heavy corrosion	2in	lin, heavy corrosion			3 1/4" long		3 1/2" long	3 1/4"			2 1/2in	lin	li.	1 1/4in	2 in	2 1/4" long	3 1/2 in	1 3/4 in
common	common	large wire nails	framing	small wire nail	nail heads	nail	common	wire nail shank	common	common	large wire nail	common	small wire nails	wire nail shank	wire nail fragment	wire nails	finishing nail	framing	large wire nail	medium wire nails	nail shank, cut?	common	roofing nail	small wire nail	common	common	common	framing	common
9	9		16				9		9	Q		9						16				9			м	9	9	91	5
51.A2316.100.847	5LA2316.100.886	5LA2316.100.885	5LA2316.100.875	5LA2316.100.851	5LA2316.100.850	5LA2316.100.792	5LA2316.100.900	5LA2316.100.726	5LA2316,100,725	5LA2316,100.636	5LA2316.100.639	5LA2316.100.640	SLA2316.100.641	5LA2316,100.642	5LA2316,100.649	5LA2316.100.724	5LA2316,100.727	5LA2316,100,724	5LA2316.100.814	5LA2316,100.658	5LA2316.100.698	5LA2316,100,677	5LA2316.100.662	5LA2316,100.661	5LA2316.100.660	5LA2316.100.658	5LA2316.100.714	5LA2316,100,657	5LA2316,100,659
F5-53	F5-87	F5-86	F5-76	F5-57	F5-56	F5-05	F5-99	41-07	41-06	38-49	38-32	38-33	38-34	38-35	38-49	41-05	41-08	41-04	F5-26	39-08	39-31	39-47	39-13	39-12	39-11	39-09	39-46	39-07	39-10

nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	naile								
hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware								
present	present	present		present	present	present		present	present	present	present	present	present	present	present	present	present		present	present	present	present	present	present	present	present	present	***************************************
1890	1890	1890		1890	1890	1890		1890	1890	1890	1890	1890	1890	1890	1890	1890	1890		1890	1890	1890	1890	1890	1890	1890	1890	1890	1000
guoi ui 7	4 1/2 in long	2 1/4 inch		2 in long	1 1/4 in long	2 1/2 in long	1 3/4 in long			2 inch long	2 1/2 inch	4 in long			length 1 1/2"	3 1/2"	-		3 1/2"	3 1/2"		2 1/2"						
common	common	common	finishing nail	common	common	common	common	medium wire nail	smail wire nail	common	common	extra large wire nails	wire nail	medium wire nail	common	common	small wire nail	nail shank and head fragments	framing	framing	wire nail	common	large wire nail	medium wire nail	small wire nail	small wire nails	small wire nail	
0	9	9		9	3	9	5			9	9				9	9 .			16	16		9						
3LA2316.100.310	5LA2316.100.509	5LA2316.100.552	5LA2316.100.516	5LA2316.100.526	5LA2316.100.527	5LA2316.100.528	5LA2316.100.531	5LA2316.100.533	5LA2316.100.549	5LA2316.100.550	5LA2316.100.551	5LA2316.100.529	5LA2316.100.490	5LA2316.100.435	5LA2316.100.444	5LA2316.100.445	5LA2316.100.447	5LA2316.100.447.1	5LA2316.100.455	5LA2316.100.500	5LA2316.100.469	5LA2316.100.465	5LA2316.100.290	5LA2316.100.308	5LA2316.100.283	5LA2316.100.395	5LA2316.100.252	200000000000000000000000000000000000000
36-10	36-09	36-46	36-16	36-26	36-27	36-28	36-31	36-49	36-43	36-44	36-45	36-29	35-45	35-02	35-11	35-12	35-14	35-14	35-49	35-48	35-30	35-25	34-03	34-21	33-35	34A-17	33-55	22 66

33-18	5LA2316.100.267		medium wire nails		1890	present	hardware	nails
33-19	5LA2316.100.268		large wire nail		1890	present	hardware	nails
33-20	5LA2316.100.269		medium wire nail		1890	present	hardware	nails
33-21	5LA2316.100.270		small wire nails		1890	present	hardware	nails
33-22	5LA2316.100.271		small wire nails		1890	present	hardware	nails
33-23	5LA2316.100.272		finishing nails				hardware	nails
33-24	5LA2316.100.273		roofing nail				hardware	nails
33-37	5LA2316.100.285		small wire nail		1890	present	hardware	nails
34A-37	5LA2316.100.381	3	common	1 1/4 long	1890	present	hardware	nails
34-20	5LA2316.100.307.1		medium wire nail		1890	present	hardware	nails
33-45	5LA2316.100.242		wire nails		1890	present	hardware	nails
34-22	5LA2316.100.309		small wire nail		1890	present	hardware	nails
34-22	5LA2316.100.309.1		finishing nails				hardware	nails
34-22	5LA2316.100.309.2		small wire nails		1890	present	hardware	nails
34-23	5LA2316.100.310		wire roofing nails		1890	present	hardware	nails
34-53	5LA2316.100.316		large wire nails		1890	present	hardware	nails
34-21	5LA2316.100.330		large wire nails		1890	present	hardware	nails
34A-18	5LA2316.100.396		wire nails		1890	present	hardware	nails
42-07	5LA2316.100.763		large wire nail	4" long	1890	present	hardware	nails
42-08	5LA2316.100.765	9	common	2 1/2"	1890	present	hardware	nails
42-09	5LA2316.100.764	9	common	2" long	1890	present	hardware	nails
41-10	5LA2316.100.766	3	common	1 1/4" long	1890	present	hardware	nails
42-11	SLA2316.100.767		roofing nails				hardware	nails
42-26	5LA2316.100.781		wire nail	1	1890	present	hardware	nails
34-20	5LA2316.100.307		large wire nails		1890	present	hardware	nails
34A-44	5LA2316.100.388		small wire nail	7/8 long	1890	present	hardware	nails
34A-01	5LA2316.100.370		wire nail		1890	present	hardware	nails
09-17	5LA2316.100.110				1890	present	hardware	nails
10-04	5LA2316.100.115	9	common		1890	present	hardware	nails
91-60	5LA2316.100.109	9	common		1890	present	hardware	nails
09-15	5LA2316.100.108	9	common		1890	present	hardware	nails
60-60	SLA2316.100.102	9	common		1890	present	hardware	nails

nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails	nails
nardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware	hardware
present		present	present	present	present	present	present	present	present	present	present	present		present												
1890		1890	1890	1890	1890	1890	1890	1890	1890	1890	1890	1890		1890	1890	1890	1890	1890	1890	1890	1890	1890	1890	1890	1890	1890
neavy corrosion														bent											bent	
common	roofing		framing	common	medium wire nail	common	common	common	common		common	common		framing	common	common	common	casing	common		common	common	common	common	wire nail	common
٥	7		20	3		9	9	2	9		9	9		16	9	3	5	10	9		9	8	9	9		9
SLA2316.100.091	SLA2316.100.089	5LA2316.100.088	5LA2316.100.083	5LA2316.100.101	5LA2316.100.362	5LA2316.100.362	5LA2316.100.146	5LA2316.100.192	5LA2316.100.176	5LA2316.100.186	5LA2316.100.187	5LA2316.100.189	5LA2316.100.168	5LA2316.100.135	5LA2316.100.188	SLA2316.100.163	5LA2316.100.136	5LA2316.100.125	5LA2316.100.123	5LA2316.100.122	5LA2316.100.120	5LA2316.100.137	5LA2316.100.021	5LA2316.100.023	SLA2316.100.227	ST A 2316 100 222
08-10	80-80	20-80	08-02	80-60	09-19	61-60	11-33	12-17	12-01	12-11	12-12	12-14	11-38	11-20	12-13	11-51	11-21	11-10	11-08	11-07	11-05	11-22	03-02	03-04	32-01	13.01

Other

Site #	Prev#	Cat #	Feature	Unit	Lot	HZ0	Material	Description	Portion	Quantity	Weight
5LA2316	03-01	SLA2316.100.020		3	_	FALSE	granite?	fire cracked rock	incomplete	_	8.0
5LA2316	11-09	5LA2316.100.124	_	=	_	FALSE	granite	fire cracked rock	incomplete	_	27.3
5LA2316	08-03	SLA2316.100.084	2	00	_	FALSE	fabric	tan fabric, unraveling	incomplete	-	2.5
5LA2316	08-11	5LA2316 100,092	7	00	4	FALSE	shell or bakelite	flat fragments with ribbed edges like a dime	incomplete	СІ	0.3
5LA2316	10-03	SLA2316.100.114	2	10	_	FALSE	granite	fire cracked rock	incomplete	2	9.99
SLA2316	34-14	5LA2316.100.301	ы	34	_	FALSE	metal	metal pencil end with eraser	complete	_	1.
SLA2316	34A-13	5LA2316.100.391	ĸ	34A	2	FALSE	aluminum	aluminum		٣	too light for scale
5LA2316	34A-15	5LA2316.100.393	3	34A	2	FALSE	tar paper	tar paper		19	4.3
5LA2316	34-29	5LA2316.100.329	3	34	2	FALSE	tar paper	tar paper		22	23.0
5LA2316	34-38	5LA2316.100.338	3	34	2	FALSE	tar	tar		_	0.3
5LA2316	34A-50	5LA2316.100.409	3	34A	2	FALSE	tar paper	tar paper fragments		3	too light
5LA2316	34A-51	5LA2316.100.410	3	34A	2	FALSE	charcoal	charcoal		9	0.4
5LA2316	34A-27	5LA2316.100.418	3	34A	3	FALSE		burned "paper"??		17	1.9
5LA2316	34A-63	5LA2316.100.432	3	34A	3	FALSE	tar paper	tar paper fragments		00	too light
5LA2316	35-56	5LA2316.100.462	3/4	35	_	FALSE	tin	tin fragment		-	too light
5LA2316	35-31	5LA2316.100.470	3/4	35	2	FALSE	tar paper	tar paper		-	0.4
SLA2316	F5-122	5LA2316.100.928	2		12	FALSE		burned paper or wood?		9	2.2
5LA2316	F5-105	SLA2316.100.905	5		10	FALSE	tin foil	burned tin foil		2	too light for scale
5LA2316	F5-12	5LA2316.100.799	s.		4	FALSE	metal	flatware-table knife		_	45.9
5LA2316	38-44	5LA2316.100.612	5	38	_	FALSE	tin foil	tin foil		7	too light
5LA2316	F5-103	5LA2316.100.903	5		10	FALSE		burned paper or wood		-	0.2
5LA2316	37-35	SLA2316.100.575	S	37	_	FALSE	tin foil	tin foil		_	too light
SLA2316	37-07	SLA2316 100 561	5	37	_	FALSE	plaster	wall plaster fragment		_	1111

0.7	0.5	too light	31.8	1.9	2.7	0.3	0.2	0.4	0.4	0.1	2.6	0.5	3.1	417.6 & too heavy	0.4	1.4	9.0	8.7	1 44 1
4	9	4	2	5	3	13	2	-	2	4	10	-	1	2	2	-	_	_	
				incomplete	incomplete	incomplete	incomplete	incomplete	incomplete	incomplete	incomplete	incomplete	incomplete						
gray button	burned paper or wood	tin foil/zinc	wall plaster, cement fragments	tar paper	fire cracked rock	colored pencil fragments	tar paper	white pearlized button with 4 holes	tar paper	tar paper	tar paper?	tar paper	tar paper	Metate	obsidian flake fragments	small, grey cylinder (chalk? Not metal, maybe slate?)	pearlized button with four holes	lithic flake, scrapper?	:
		tin foil	plaster/cement	tar paper	granite?	poom	tar paper	shell?	tar paper	tar paper		tar paper	tar paper	sandstone				chert	
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
12	13	_	æ	9	-	5	5	5	7	6	3	5	9	surface	surface	surface	surface	surface	
		37	37	7	5	9	9	9	9	9	7	7	7						
5	5	S	5	&	∞	∞	8	∞	∞	∞	∞	*	&	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	
5LA2316.100.933	5LA2316.100.938	5LA2316,100,568	SLA2316.100.594	5LA2316.100.073	5LA2316.100.027	5LA2316.100.041	5LA2316.100.042	SLA2316.100.043	5LA2316.100.044	5LA2316.100.046	5LA2316.100.056	5LA2316.100.063	5LA2316.100.067			SLA2316.101.035			
F5-127	F5-132	37-14	37-30	07-19	05-03	01-90	06-11	06-12	06-13	06-15	07-02	60-20	07-13	D-041	D-158	D-012	D-149	D-106	
5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	SLA2316	SLA2316	5LA2316	5LA2316	5LA2316	SLA2316	5LA2316	5LA2316	5LA2316	5LA2316	

Prev #	Cat #	Length	Width	Diameter	Thickness	Comments	Early Date	Late Date	Category	Class
03-01	5LA2316,100,020	1.2	1.1		0.4				indeterminate	indeterminate
11-09	5LA2316.100.124								indeterminate	indeterminate
08-03	5LA2316.100.084								personal	clothing
08-11	5LA2316.100.092				0.1				indeterminate	indeterminate
10-03	5LA2316.100.114								indeterminate	indeterminate
34-14	5LA2316.100.301					has five bands			personal	writing
34A-13	SLA2316.100.391					wrapper? Has yellow stripe with letters "ST"			Indeterminate	Indeterminate
34A-15	5LA2316.100.393								architecture	architecture
34-29	5LA2316.100.329								architecture	architecture
34-38	SLA2316.100.338								Indeterminate	Indeterminate
34A-50	SLA2316.100.409								architecture	architecture
34A-51	SLA2316.100.410								Indeterminate	Indeterminate
34A-27	5LA2316.100.418					thinner than tar paper			Indeterminate	Indeterminate
34A-63	5LA2316.100.432								architecture	architecture
35-56	5LA2316.100.462								Indeterminate	Indeterminate
35-31	SLA2316.100.470								architecture	architecture
F5-122	5LA2316.100.928								Indeterminate	Indeterminate
F5-105	5LA2316.100.905								Indeterminate	Indeterminate
F5-12	5LA2316.100.799					wood handle attached to ferrous blade, has copper			subsistence	consumption
38-44	SLA2316.100.612								Indeterminate	Indeterminate
F5-103	5LA2316.100.903								Indeterminate	Indeterminate
37-35	5LA2316.100.575								Indeterminate	Indeterminate
37-07	SLA2316.100.561								architecture	architecture
F5-127	51.A2316.100 933					one whole and one half, possibly shell?			personal	clothing

Indeterminate	Indeterminate	architecture	architecture	indeterminate	writing	architecture	Clothing	architecture	architecture	architecture	architecture	architecture	groundstone	chipped stone	Indeterminate	clothing	chipped stone	electrical
Indeterminate	Indeterminate	architecture	architecture	indeterminate	Personal	architecture	Personal	architecture	architecture	architecture	architecture	architecture	lithic	lithics	Indeterminate	personal	lithic	hardware
						-												1956
													formally shaped metate		does rub off grey on paper like a piece of chalk			www.energizer.com/learning, History of Batteries
			0.2			0.2	1.4 0.3	0.2	0.2	0.4	0.2	0.2						
5LA2316.100.938	5LA2316.100.568	5LA2316.100.594	5LA2316.100.073	5LA2316.100.027	5LA2316.100.041	5LA2316.100.042	5LA2316.100.043	5LA2316.100.044	5LA2316.100.046	SLA2316.100.056	5LA2316.100.063	5LA2316.100.067			5LA2316.101.035			
F5-132 5LA2	37-14 5LA2	37-30 SLA2		05-03 5LA2			06-12 SLA2	06-13 SLA2		07-02 SLA2	07-09 5LA2	07-13 5LA2	D-041	D-158	D-012 5LA2	D-149	D-106	D-138

Plastic

Site #	Prev#	Cat #	Feature	Unit Lot	Lot	Description	Quantity Weight	Weight	Comments	category	class
5LA2316	5LA2316 34A-09	5LA2316.100.3 78	т	34A	-	black plastic-like fragment, bakelite???	-	0.4	fs list says brown ceramic?? Not brown after washed	indeterminate	indeterminate
5LA2316 36-57	36-57	5LA2316,100.5 53	4	36	C1	blue fragment (bakelite?)	-	too light		indeterminate	indeterminate
5LA2316	F5-73	5LA2316.100.8 72	5		00	black bakelite comb spine	-	1.8		personal	adornment
	F5-104	5LA2316.100.9 04	5		10	black bakelite comb spine	-	9.0		personal	adornment

Tin Cans

Prev #	Cat #	Feature	Unit	Lot	H20	Description	Quantity	Weight	Diameter	Mode of Opening	Seams
D-029		diagnostic	01	surface	FALSE	baking powder slip on lid					
D-134		diagnostic	01	surface	FALSE	baby powder can				slip on lid	
D-092		diagnostic	51	surface	FALSE	baking powder slip on lid					
D-021		diagnostic	01	surface	FALSE	whole can, smashed, sanitary	-	101.3			
D-022		diagnostic	8	surface	FALSE	whole can, smashed, sanitary	-	107.7			
D-020		diagnostic	o,	surface	FALSE	whole can, rectangular, smashed	-	192.0		spout	
D-025		diagnostic	65	surface	FALSE	partial can, smashed	-	6.06			folded
D-023		diagnostic	<i>S</i> 1	surface	FALSE	whole can, smashed, sanitary	-	104.1			rolled
D-027		diagnostic	51	surface	FALSE	sanitary food can					
D-051		diagnostic	<i>S</i>	surface	FALSE	round can lid, screw-on	_	8.7	6 cm	screw on	
D-154		diagnostic	51	surface	FALSE	tin can fragment					
D-132		diagnostic	51	surface	FALSE	hinged tobacco can lid					
D-096		diagnostic	S	surface	FALSE	hinged lid, tobacco can					•
D-054		diagnostic	S	surface	FALSE	sanitary food can	_	73.0	7.15 cm		folded
D-047		diagnostic	S	surface	FALSE	sanitary food can					
D-043		diagnostic	S	surface	FALSE	whole can, smashed, rectangular	_	0.69		hinged lid	rolled
D-042		diagnostic	ø,	surface	FALSE	smashed sanitary food can, whole	_	179.0			rolled
D-039		diagnostic	en.	surface	FALSE	rectangular can base					
D-038		diagnostic	81	surface	FALSE	baking powder slip on lid					
D-037		diagnostic	w,	surface	FALSE	baking powder slip on lid					
D-034		diagnostic	S	surface	FALSE	baking powder slip on lid					
D-035		diagnostic	v)	surface	FALSE	partial rectangular lid, smashed	7	19.4			rolled

	rolled		folded																										double
slip on																													
13 cm																													
41.9	0.78	2.3	1.0	1.8	41.8	2.1	6.0	1.7	37.1	0.2	0.4	0.3	1.3	1.9	12.8	5.8	4.4	3.7	1.5	18.5	54.8	63.9	18.3	184.5	2.2	16.8	0.4	11.0	89.4
_	2	9	_	2	2	3	3	3	33	-	-	_	2	2	2	01	9	3	7	28	19	22	2	_	2	-	-	_	-
round can lid, slip on, coffee	can fragments	tin can fragments	metal can rim	can rim fragments	can fragments	tin can fragments	tin can fragments	can fragments	metal fragments-can	flat metal fragment, can	metal fragment, folded can lip	folded can rim fragment	metal can fragments	can fragments	can fragments, lid	can fragments	flat metal can fragments	flat metal can fragments	metal can fragments	can base and partial body	can fragments	can fragment	can fragment	sanitary can lid	sanitary can, whole, smashed				
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
surface	surface	2	4	4	0	_	_	0	_	wall cleanup	_	2	3	2	_	_	2	0	_	4	5	9	7	13	Н	0	Ь	surface	surface
		11	=	12	18	61	20	33	34	34	34A	34A	34A	38	39	41	41	42	42										
diagnostic	diagnostic	1	-	-				23	3	۳	8	3	3	5	4	5	5	3	3	5	2	2	5	5	surface	surface	surface	diagnostic	diagnostic
		5LA2316.100.131	SLA2316,100,156	5LA2316.100.200	5LA2316.100.210	5LA2316.100.211	SLA2316.100.214	5LA2316.100.245	5LA2316.100.304	5LA2316.100.369	5LA2316.100.377	SLA2316.100.407	5LA2316.100.427	5LA2316.100.625	5LA2316.100.655	5LA2316.100.744	SLA2316.100.750	SLA2316.100.758	5LA2316.100.768	5LA2316.100.793	5LA2316.100.813	5LA2316.100.831	5LA2316.100.863	5LA2316.100.935	5LA2316.100.955	5LA2316.100.993	5LA2316.100.997	5LA2316.101.025	5LA2316.101.026
D-140	D-026	91-11	11-28	12-22	18-01	10-61	20-01	33-48	34-17	34-52	34A-08	34A-48	34A-36	38-21	39-05	41-25	41-27	42-02	42-12	F5-06	F5-25	F5-38	F5-145	F5-129	SCLH04	SCLO-02	SCLP-02	D-002	D-003
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

rolled	rolled					rolled	rolled	
				, and the state of				
7:06	54.4	9.69	9.9	108.4	98.1	111.6	109.8	16.3
_	-	_	-	-	-	_	-	-
whole can, smashed, sanitary	large sanitary food can lid; hole puncture	sanitary food can; whole; smashed, jagged edge where opened	rectangular can lid; slip-on	large sanitary can; 4.5" diameter	large sanitary can; 4.5" diameter	sanitary food can; whole, smashed	sanitary food can; whole, partially smashed	round can lid; slip-on, baking powder or soda type
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
surface	surface	surface	surface	surface	surface	surface	surface	surface
diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic	diagnostic
5LA2316.101.027	5LA2316.101.029	5LA2316.101.030	5LA2316.101.031	5LA2316.101.032	5LA2316.101.033	5LA2316.101.039	5LA2316.101.040	SLA2316.101.041
D-004	D-006	D-007	D-008	D-009	D-010	D-016	D-018	D-019
5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316	5LA2316

Prev #	Cat #	Embossing	Contents	Comments	Early date	Late date	Category	Class
D-029				not collected			subsistence	storage
D-134				not collected			personal	cosmetic
D-092				not collected			subsistence	storage
D-021				approx. diameter 2.4", rolled seams			subsistence	storage
D-022							subsistence	storage
D-020				approx. height 7", folded seams			subsistence	storage
D-025				folded seams			subsistence	storage
D-023				rolled seams, approx. diameter 3"			subsistence	storage
D-027				not collected, Rock pg 105	1904		subsistence	storage
D-051				circular embossing on top, can't make out what it says			subsistence	storage
D-154				not collected			subsistence	storage
D-132				not collected	1910		personal	recreation
D-096				not collected	1910		personal	recreation
D-054			tomato or fruit juice	folded seams, Rock pg. 105; possible a No. 300 or 300X can-contains tomato juice, or other fruit juices (IMACS pg 471)	1904		subsistence	storage
D-047				not collected			subsistence	storage
D-043				folded seams, hinged lid			subsistence	storage
D-042				rolled seams, Rock pg. 105	1904		subsistence	storage
D-039				not collected			subsistence	storage
D-038				not collected			subsistence	storage
D-037				not collected			subsistence	storage
D-034				not collected			subsistence	storage
D-035				folded seams; possible spout			indeterminate	indeterminate
D-140		Morado Coffee, The Morey Merc. Co, Denver, CO	coffee				subsistence	storage
D-026				rolled seams			subsistence	storage

storage	storage	storage	storage	storage	storage	storage
subsistence	subsistence	subsistence	subsistence	subsistence	subsistence	subsistence
diameter 3 1/2", probably only 3" tall or so, Rock pg 105 TPQ 1904, Miller-1898 to present	2 1/4"long, 1 1/2" wide	about 6 1/4" tall, Rock pg 105 TPQ 1904, Miller-1898 to present	about 5 1/4" tall, missing top and bottom end, has a hinge on one side	rolled seams and flange, Rock pg 105 TPQ 1904, Miller-1898 to present, approx. can height 4 1/4", approx. can diameter 4 1/2".	rolled seams and flange, Rock pg 105 TPQ 1904, Miller-1898 to present, approx. can height 4 1/2", can diameter 5"	approx. diameter 2 1/2", height 5/8"
5LA2316.101.030	5LA2316.101.031	5LA2316.101.032	5LA2316.101.033	5LA2316.101.039	5LA2316.101.040	5LA2316.101.041
D-007	800-Q	600-Q	D-010	D-016	D-018	D-019

5LA2359													
Ammo													
Cat#	Prev #	Feature Unit	Unit	Lot	Point Plot	H20	Material	H20 Material Description Portion Quantity Weight Length Diameter	Portion	Quantity	Weight	Length	Diameter
5LA2359.100.003	D-01 DSC	DSC		surface	13 854 433E, 41 47 688N	FALSE	copper	rimfire shell	complete	_	2.0	3/4"	2/16

	_
Comments	calibre and manufacturer from Logan's 1948 "Cartridges:a pictorial digest of small arms ammunition" —dates from Carrillo's chapter 5 "Relative Dating of Historic Homesteads: A test employing cartidges and bottle glass"
Class	ammunition
Category	1867 1910 firearms
Sarly Late Date Date	1910
Early Date	1867
Manufacturer/Type D	Union Metallic Cartridge Company (UMC)
Maker's Mark	none
Center/Rim	mi
Calibre	42

Glass

	13 585 427 E, 41 47 700N	700N FALSE	aqua glass frag	pody	-	12.9	
Surrace	Labour						
Makers		Mold		Early	Late		
Mark	Contents		Worked Burned Modified		Date	Category	Class
		FALSE TRUE	FALSE FAI	FALSE 1870	1915	subsistence	consumption

Comments

date taken from PCMS 2000-Bent Stage database for light aqua

	Cat #	Prev #	Prev # Feature	Unit	Lot		H20	Material	Point Plot H20 Material Description Portion Quantity Weight Length	Portion	Quantity	Weight	Length
5LA23	SLA2359.100.002	16-02		SP 59-16	SP 59-16 shovel probe		FALSE	ferrous	FALSE ferrous flat metal frag		1	0.7	2
Width	Width Diameter Guage Decora	Guage	Decoration	Modified		Comments			Early Date Late Date Category	Late Date	Category		Class
1.7				FALSE	FALSE not can, maybe a metal strap of some sort?	a metal strap of	f some sort?				indeterminate indeterminate	indet	erminate

Cat #	Prev # Feat	Feature	Unit	Lot	Point Plot	Point Plot Elevation	H20	H20 Description Type Portion Quantity Weight	Type	Portion	Quantity	Weight	Length
				shovel									1 1/2, 1
5LA2359.100.001 16-01	10-91		SP 59-16	probe			FALSE	common	cut	shanks	2	8.7	1/4
		Early	Late										
Pennyweight Comments	Comments	date	date	Category	Class								

5LA5366	9											
Ammo												
Cat #	#1	Prev#	Feature	Unit	Lot	Point Plot	Plot	Elevation	HZ0	Material	Material Description	Portion
5LA2366.100.099	660.0	D-04	DSC		surface	surface 13 584 775E, 41 47 397N	397N	5386	FALSE brass		shell casing	complete
Ouantity		Weight Length	Diameter	Calibre	් 	Center/Rim Maker's Mark		Manufacturer Type	Early Date	Late Date	Category	Class
-	8.7	11/2"	approx 1/2 "	.50?	center	31					firearms	Ammunition

Bone

Cat #	Prev #	Feature Unit	Lot	Elevation	Point Plot	H20	Material	Description	Quantity	Quantity Weight	Species
5LA2366.100.002	03-01	66A-03	shovel probe			FALSE	bone	frag, looks bleached	_	8.0	mammal
5LA2366.100.004	08-02	66A-08	shovel probe			FALSE	pone	frag, looks bleached	_	0.4	mammal
5LA2366.100.017	23-03	66A-23	shovel probe			FALSE	bone	bone frags	22	33.4	mammal
5LA2366.100.020	24-01	66A-24	shovel probe			FALSE	bone	long bone frag	5	21.4	mammal
5LA2366.100.048	33-01	55A-33	shovel probe			FALSE	bone	vertebrae	_	8.4	mammal
5LA2366.100.077	Sup1A- 01	66A-Sup1	shovel probe			FALSE	bone	vertebrae	00	48.7	mammal
5LA2366.100.082	Sup2A- 01	66A-Sup2	2 shovel probe			FALSE	bone	longbone	_	3.8	mammal
5LA2366.100.089	10-60	60-B99	shovel probe			FALSE	bone	longbones, some flat	10	9.11	mammal
5LA2366.100.090	14-01	66B-14	shovel probe			FALSE	pone	frag	_	1.1	mammal
5LA2366.100.091	17-01	66B-17	shovel probe			FALSE	bone	frag	_	3.1	mammal
5LA2366.100.092	20-01	66B-20	shovel probe			FALSE	bone	frags, some longbone, vertebrae	18	13.2	mammal
5LA2366.100.094	25-01	66B-25	shovel probe			FALSE	bone	frag	_	1.8	mammal
5LA2366.100.097	33-01	66B-33	shovel probe			FALSE	bone	longbone, vertebrae, patella	6	39.2	mammal

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Cat#	Burned	Comments	Category	Class
5LA2366.100.002	FALSE		faunal	pone
5LA2366.100.004	FALSE		faunal	bone
SLA2366.100.017	FALSE	vertebrae, long bone frags, and flat bone frags, rib frags	faunal	bone
5LA2366.100.020	FALSE	long bone, patella	faunal	bone
5LA2366.100.048	FALSE		faunal	bone
5LA2366.100.077	FALSE		faunal	bone
5LA2366.100.082	FALSE	maybe rabbit	faunal	pone
5LA2366.100.089	TRUE	rabbit?	faunal	bone
5LA2366.100.090	FALSE		faunal	bone
5LA2366.100.091	FALSE		faunal	pone
5LA2366.100.092	TRUE		faunal	bone
5LA2366.100.094	FALSE		faunal	pone
5LA2366.100.097	FALSE		faunal	bone

Ceramics

		The state of the s			-									177 . 4 2 6
Prev #	Cat #		reature	Unit	Lot	Point Plot	HZ0	Description	Portion	Form	Quantity	weight	weight Length Width	Width
				P99	shovel									
10-7	42-01 5LA2366.100.069	69		4	probe		FALSE	stoneware	pody			2.7	∞	1.4
							Mele	-7-	1					
iameter	Diameter Thickness Closure Decoration	Closure	Decorat	non		Glaze	Mark	k Early Date	te Date	Comi	Comments	Category	Class	
	0				100	0.0							.,,	
	0.0			Q	HACK BIAZE	DIACK RIACE EXT. DULL RIACE INC.					35	Substitute	consumption	HO

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Cat#	Prev # Fea	Feature Unit	Lot	Point Plot	H20	Description	Portion	Finish/shape	Quantity
5LA2366.100.001	02-01	66A-02	shovel probe		FALSE	vessel glass	body		_
5LA2366.100.005	09-01	60-P99	shovel probe		FALSE	glass frags	body		2
5LA2366.100.006	14-01	66A-14	shovel probe		FALSE	vessel glass	rim	threaded, jar	-
5LA2366.100.009	16-02	94-16	shovel probe		FALSE	vessel glass	body		-
5LA2366.100.010	17-01	66A-17	shovel probe		FALSE	vessel glass	body		-
5LA2366.100.011	19-01	66A-19	shovel probe		FALSE	vessel glass	body		_
5LA2366.100.025	24-04	66A-24	shovel probe		FALSE	vessel glass	body		-
5LA2366.100.026	24-05	66A-24	shovel probe		FALSE	vessel glass	body		_
5LA2366.100.036	31-02	66A-31	shovel probe		FALSE	vessel glass	body		9
5LA2366.100.037	31-03 and 31-04	66A-31	shovel probe		FALSE	vessel glass	body		6
5LA2366.100.038	31-05	66A-31	shovel probe		FALSE	flat glass			-
5LA2366.100.040	32-02	66A-32	shovel probe		FALSE	vessel glass	body,shoul der		2
5LA2366.100.041	32-03	66A-32	shovel probe		FALSE	flat glass			3
5LA2366.100.050	33-03	66A-33	shovel probe		FALSE	flat glass			9
5LA2366.100.053	37-02	66A-37	shovel probe		FALSE	vessel glass	body		2
5LA2366.100.057	39-01	66A-39	shovel probe		FALSE	vessel glass			-
5LA2366.100.062	40-03	66A-40	shovel probe		FALSE	vessel glass	body		_
5LA2366.100.063	40-04	66A-40	shovel probe		FALSE	flat glass			5
5LA2366.100.064	40-05	66A-40	shovel probe		FALSE	vessel glass	body		-
5LA2366.100.066	41-01	66A-41	shovel probe		FALSE	flat glass			-
5LA2366.100.067	41-01	66A-41	shovel probe		FALSE	glass frag			-
SLA2366.100.073	44-03	66A-44	shovel probe		FALSE	vessel glass	neck	screw finish	_
5LA2366.100.074	44-04	66A-44	shovel probe		FALSE	flat glass			_
5LA2366.100.078	Sup1A-02	66A-Supl	shovel probe		FALSE	vessel glass	base		3
SLA2366 100 079	Sup1A-03	66A-Sup1	shovel probe		FALSE	flat glass			9

2	1	1
	base	pody
flat glass	vessel glass	vessel glass
FALSE	FALSE	FALSE
	13 584 904E, 41 47 367N	
shovel probe	surface	shovel probe
66A-Sup2		66B-02
	DSC	
Sup2A-02	D-03	02-01
5LA2366.100.083	5LA2366.100.086	5LA2366.100.087

Cat #	Weight	Length	Width	Diameter	Thickness	Color	Embossing	Makers Mark	Contents
5LA2366.100.001	0.3					colorless			
5LA2366.100.005	8.0				0.1	colorless			
5LA2366.100.006	8.0					colorless			
5LA2366.100.009	0.7					colorless			
5LA2366.100.010	0.5					amber			
5LA2366.100.011	0.5					colorless			
5LA2366.100.025	0.1					colorless			
5LA2366.100.026	0.4					amber			
5LA2366.100.036	16.4					amber			
5LA2366.100.037	10.4					colorless			
5LA2366.100.038	6.0				1/16	colorless			
5LA2366.100.040	1.7					colorless			
5LA2366.100.041	5.1				1/8	colorless			
5LA2366.100.050	8.5				1/8	colorless			
5LA2366.100.053	1.5					colorless			
5LA2366.100.057	1.5				1/8	It. Aqua			
5LA2366.100.062	0.1					amber			
5LA2366.100.063	1.2				1/16	colorless			
5LA2366.100.064	0.3				4	colorless			
5LA2366.100.066	0.4				1/16	colorless			
5LA2366.100.067	0.2				0.1	colorless			
5LA2366.100.073	5.7			1.2	0.3	colorless	yes		
5LA2366.100.074	2.6				1/8	colorless			
5LA2366.100.078	15.0					colorless	yes		
5LA2366.100.079	2.6				1/16	colorless			
5LA2366.100.083	2				1/16	colorless			

100.086 96.1 1.0 amber yes diamond bleach	
5LA2366.100.086	5LA2366.100.087

Cat#	Mold Marks	Modified	Comments	Early Date	Late Date	Category	Class
5LA2366.100.001	FALSE	FALSE				subsistence	consumption
5LA2366.100.005	FALSE	FALSE	maybe globe glass			indeterminate	indeterminate
5LA2366.100.006	FALSE	FALSE				subsistence	storage
5LA2366.100.009	FALSE	FALSE				subsistence	consumption
5LA2366.100.010	FALSE	FALSE				recreation	alcohol
5LA2366.100.011	FALSE	FALSE				subsistence	consumption
5LA2366.100.025	FALSE	TRUE	possible shatter			subsistence	consumption
5LA2366.100.026	FALSE	FALSE				recreation	alchohol
5LA2366.100.036	FALSE	FALSE				recreation	alcohol
5LA2366.100.037	FALSE	FALSE				subsistence	consumption
5LA2366.100.038	FALSE	FALSE				architecture	window glass
5LA2366.100.040	FALSE	FALSE	patenated, one piece possibly part of shoulder with cross pattern			subsistence	consumption
5LA2366.100.041	FALSE	FALSE				architecture	window glass
5LA2366.100.050	FALSE	FALSE				architecture	window glass
5LA2366.100.053	FALSE	FALSE				subsistence	consumption
5LA2366.100.057	FALSE	FALSE				architecture	window glass
5LA2366.100.062	FALSE	TRUE	possibly shatter?			recreation	alcohol
5LA2366,100,063	FALSE	FALSE				architecture	window glass
5LA2366.100.064	FALSE	FALSE				subsistence	consumption
5LA2366.100.066	FALSE	FALSE				architecture	window glass
5LA2366.100.067	FALSE	FALSE	thin, globe glass?			indeterminate	indeterminate
5LA2366.100.073	TRUE	FALSE	embossed circle on neck, maybe a small condiment bottle			subsistence	consumption
5LA2366.100.074	FALSE	FALSE				architecture	window glass
SLA2366.100.078	FALSE	FALSE	base embossed "DEPA, patented"			subsistence	consumption
5LA2366.100.079	FALSE	FALSE				architecture	window glass
SI A2366 100 083	FALSE	FALSE				architecture	window place

ner	hol
clea	alco
domestic	recreation
embossing "CLOROXoffus."	
FALSE	FALSE
FALSE	FALSE
5LA2366.100.086	5LA2366,100.087

Lithics									
Cat #	Prev #	Feature	Unit	Lot	Point Plot	Surface	H20	Material	Description
A2366 100 098	39-01		66B-39			FALSE	FALSE	chert	shatter

Cat#	Portion	Quantity	Weight	Length	Width	Diameter	Thickness	Comments	Early Date	Late Date	Category	Class
5LA2366.100.098		1	0.2	1.0	0.7		0.3				lithic	shatter

Metal

Ē.	Feature	Unit	Lot	Point Plot	Surface	H20	Material	Description	Portion	Quantity	Weight	Length
		66A-14			FALSE	FALSE	ferrous	flat metal frag		-	0.2	
		91-V99			FALSE	FALSE	ferrous	metal frags, can		5	2.7	
		61-V99			FALSE	FALSE	ferrous	razor blade	complete	-	3.7	4.0
		66A-22			FALSE	FALSE	ferrous	metal jar lid	complete	-	19.3	
		66A-23			FALSE	FALSE	ferrous	bolt with washer (carriage)	complete	-	38.9	2172
		66A-23			FALSE	FALSE	ferrous	metal frags, can		3	1.3	
		66A-24			FALSE	FALSE	ferrous	fence staple	complete	-	2.2	-
		66A-24			FALSE	FALSE	ferrous	metal frags		6	5.5	
		66A-25			FALSE	FALSE	ferrous	metal frags, can	incomplete	œ	14.3	
		66A-31			FALSE	FALSE	ferrous	wire	incomplete	-	1.6	
		66A-38			FALSE	FALSE	ferrous	metal can frag (lid or base?)	incomplete	-	6.2	3
		66A-40			FALSE	FALSE	ferrous	wire	incomplete	-	==	
		66A-40			FALSE	FALSE	ferrous	flate metal frags, can		4	3.1	
		66A-41			FALSE	FALSE	ferrous	flat metal frags, can		2	6.0	
		66A-43			FALSE	FALSE	ferrous	flat metal frags, can		2	0.7	
		66A-45			FALSE	FALSE	ferrous	flat metal frags, can		2	1.3	
		66A-49			FALSE	FALSE	ferrous	fence staple	complete	-	0.9	1 1/2
		66A- Sup1			FALSE	FALSE	ferrous	metal stove part, burner	incomplete	_	128.1	12.5
DSC	υ				TRUE	FALSE	ferrous	metal can lid with embossing	incomplete	_	22.1	
		66B-04			FALSE	FALSE	ferrous	wire		_	22.7	
		66B-20			FALSE	FALSE	ferrous	metal frag		-	0.4	
		66B-29		13 584 689E, 41 47	FALSE	FALSE	ferrous brass handle ferrous	fence staple	complete complete except for handle	_	5.5	11/2
		66B-39		331N	FALSE	FALSE	plad	folding knife	sides	-	91.1	4

Cat #	Width	Width Diameter Guage		Decoration	Modified	Comments	Early Date	Early Date Late Date	Category	Class
SLA2366.100.007					FALSE				indeterminate	indeterminate
5LA2366.100.008					FALSE	one has three equally spaces triangular tabs			indeterminate	indeterminate
SLA2366.100.012	2.0				FALSE				Personal	indeterminate
SLA2366.100.014		æ	Ε δ	ribbed around edge	FALSE				subsistence	food storage
5LA2366.100.015					FALSE	one end is square and the other is rounded			transportation	Carriage
SLA2366.100.018					FALSE				indeterminate	Indeterminate
SLA2366.100.021	1/2				FALSE				Livestock	Fencing
SLA2366.100.029					FALSE				indeterminate	Indeterminate
5LA2366.100.031					FALSE	folded top seam			subsistence	food storage
5LA2366.100.035					FALSE				indeterminate	Indeterminate
5LA2366.100.056	_				FALSE				subsistence	food storage
5LA2366.100.060					FALSE				indeterminate	Indeterminate
5LA2366.100.065					FALSE				indeterminate	Indeterminate
5LA2366.100.068					FALSE				indeterminate	indeterminate
5LA2366.100.070					FALSE				indeterminate	indeterminate
5LA2366.100.075					FALSE				indeterminate	indeterminate
5LA2366.100.076	1/2				FALSE				livestock	fencing
5LA2366.100.080	5.0				FALSE				Subsistence	Food preparation
5LA2366.100.084		3			FALSE	"embossed with ""Unscrew to Left, Pat'D Mar 31 '68, Mar 4 '73, Self Sealing Can, Dec 7, 1880, Made by Norton Bros. Chicago"	1880		subsistence	food storage
5LA2366.100.088					FALSE				indeterminate	indeterminate
5LA2366.100.093					FALSE				indeterminate	indeterminate
SLA2366.100.096	7,				FALSE				livestock	fencing
ST A 2266 100 009	-				FALSE				personal	tool

Site #	Prev #	Cat #	Feature	Unit	Lot	Surface	H20	Photo	Description	Type	Portion	Quantity	Weight	Length
5LA2366	08-01	5LA2366.100.003		80-V99		FALSE	FALSE	FALSE	wire	framing	complete	1	9.6	3
5LA2366	23-02	5LA2366.100.016		66A-23		FALSE	FALSE	FALSE	wire	common	complete	-	5.0	2
SLA2366	24-03	5LA2366.100.022		66A-24		FALSE	FALSE	FALSE	wire	framing	complete	_	6.4	3
SLA2366	24-03	5LA2366.100.023		66A-24		FALSE	FALSE	FALSE	wire	framing	complete	_	15.1	2
5LA2366	24-03	5LA2366.100.024		66A-24		FALSE	FALSE	FALSE	wire	common	complete	-	2.0	2
SLA2366	24-06	5LA2366.100.027		66A-24		FALSE	FALSE	FALSE	wire	common	incomplete	_	0.4	
5LA2366	24-06	5LA2366.100.028		66A-24		FALSE	FALSE	FALSE	wire	common	shank	-	3.3	
SLA2366	24-08	5LA2366.100.030		66A-24		FALSE	FALSE	FALSE	cut	common	complete	_	6.5	1 3/4
5LA2366	25-02	5LA2366.100.032		66A-24		FALSE	FALSE	FALSE	wire	common	complete	_	4.6	2 1/4
5LA2366	25-03	5LA2366.100.033		66A-25		FALSE	FALSE	FALSE	wire	roofing tack	complete	_	1.9	3/4
5LA2366	32-05	5LA2366.100.043		66A-32		FALSE	FALSE	FALSE	wire	common	complete	2	9.7	2
5LA2366	32-05	5LA2366.100.044		66A-32		FALSE	FALSE	FALSE	wire	roofing	complete	-	4.0	1 1/4
5LA2366	32-06	5LA2366.100.045		66A-32		FALSE	FALSE	FALSE	wire	framing	complete	_	8.6	2 3/4
5LA2366	32-07	5LA2366.100.046		66A-32		FALSE	FALSE	FALSE	wire	framing	complete	-	20.5	4
5LA2366	33-02	5LA2366.100.049		66A-33		FALSE	FALSE	FALSE	wire	common	complete	_	4.9	2 1/4
5LA2366	37-01	5LA2366.100.051		66A-37		FALSE	FALSE	FALSE	wire	common	complete	-	4.7	2
5LA2366	37-01	5LA2366.100.052		66A-37		FALSE	FALSE	FALSE	wire	wire	complete	-	7.1	2112
SLA2366	38-01	5LA2366.100.054		, 66A-38		FALSE	FALSE	FALSE	wire	roofing	complete	-	2.2	3/4
5LA2366	39-02	5LA2366.100.058		66A-39		FALSE	FALSE	FALSE	wire	framing	complete	1	9.4	3
5LA2366	40-02	5LA2366.100.061		66A-40		FALSE	FALSE	FALSE	wire	common	complete	-	4.3	2 1/2
5LA2366	44-01	5LA2366.100.071		66A-44		FALSE	FALSE	FALSE	wire	common	complete	2	10.0	2
5LA2366	44-02	5LA2366.100.072		66A-44		FALSE	FALSE	FALSE	wire	framing	complete	_	9.6	3 1/4
5LA2366	Sup1A- 05	5LA2366.100.081		66A- Sup1		FALSE	FALSE	FALSE	wire	соттоп	complete	_	8.	7
41 A 2366	25-02	SLA2366 100 095		66B-25		FALSE	FALSE	FAISE	cut	common	incomplete	_	69	

			Early	Late		
Cat #	Pennyweight	Comments	date	date	Category	Class
SLA2366.100.003	10		1890	present	architecture	nails
SLA2366.100.016	9		1890	present	architecture	nails
SLA2366.100.022	10		1890	present	architecture	nails
SLA2366.100.023	9		1890	present	architecture	nails
SLA2366.100.024	10		1890	present	architecture	nails
SLA2366.100.027			1890	present	architecture	nails
SLA2366.100.028			1890	present	architecture	nails
5LA2366.100.030	5		1830	1902	architecture	nails
5LA2366.100.032	7		1890	present	architecture	nails
5LA2366.100.033					architecture	nails
SLA2366.100.043	9		1890	present	architecture	nails
5LA2366.100.044	en	has a umbrella shaped head	0681	present	architecture	nails
SLA2366.100.045	6		1890	present	architecture	nails
SLA2366.100.046	20		1890	present	architecture	nails
SLA2366.100.049	7		1890	present	architecture	nails
5LA2366.100.051	9		1890	present	architecture	nails
5LA2366.100.052	∞		1890	present	architecture	nails
5LA2366.100.054			1890	present	architecture	nails
5LA2366.100.058	10		1890	present	architecture	nails
5LA2366.100.061	∞		1890	present	architecture	nails
5LA2366.100.071	9		1890	present	architecture	nails
SLA2366.100.072	12		1890	present	architecture	nails
SLA2366.100.081	9		1890	present	architecture	nails
5LA2366.100.095			1830	1902	architecture	nails

Other

Cat #	Prev # Feature	e Unit Lot	Lot	Point Plot	Surface	H20	Material	Description
5LA2366.100.013 66A-01	66A-01	66A-22			FALSE	FALSE	paper?	tar paper
5LA2366.100.019	23-05 and 23-06	66A-23			FALSE	FALSE	paper	tar paper
SLA2366.100.034	24-06	66A-27			FALSE	FALSE FALSE	unknown	red fragments (natural? Mineral?)
5LA2366.100.039	32-01	66A-32			FALSE	FALSE	paper	tar paper
SLA2366.100.042	32-04	66A-32			FALSE	FALSE	brown leather	flat leather string or strap
SLA2366.100.047	32-08	66A-32			FALSE	FALSE	shell?rock?	dark gray, looks layered
5LA2366.100.055	38-02	66A-38			FALSE	FALSE	paper	tar paper

Cat#	Portion	Portion Quantity	Weight	Length	Width	Diameter	Thickness	Weight Length Width Diameter Thickness Comments	Early Date	Late Date	Category	Class
5LA2366.100.013		25	7.2				0.2				architecture	indeterminate
5LA2366.100.019		4	9:0				0.1				architecture	indeterminate
5LA2366.100.034		ю	5.1								indeterminate	indeterminate
SLA2366.100.039		13	1.2				0.2				architecture	indeterminate
SLA2366.100.042		_	9:0	арргох 7ст	0.5		0.3				indeterminate	indeterminate
5LA2366.100.047		_	0.1	1.0	9.0		0.1				indeterminate	indeterminate
5LA2366.100.055		_	0.2				0.2				architecture	indeterminate